Lectures
ON THE
PHYSICAL EXAMINATION OF THE MOUTH AND THROAT.

Delivered to the Junior Class of Clinical Medicine, University College,

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LECTURE V.

LARYNGEAL PARALYSES: ALTERATIONS IN PHONATION AND ARTICULATION.

GENTLEMEN,—The larynx is the seat of many forms of paralysis, and we often see an impairment in the movements of the vocal cords owing to failure of one or more of the muscles which move them.

It may be well to recall your minds for a few moments to the muscles of the larynx. One may begin by saying that the mucous membrane of the larynx, except at the margins of the true vocal cords, everywhere immediately covers muscular fibres, which fibres have been grouped and named by anatomists. The best marked of these groups are—

1. The posterior crico-arytenoid muscles, which arise from the impressions on the posterior surface of the cricoid cartilages, and are inserted into the outer angle of the base of the arytenoid cartilages. These muscles rotate the arytenoid cartilages *outwards*, and thus cause the processus vocales to diverge. They cause the vocal cords to separate widely, or, in other words, they *abduct* them. These are the only muscles which separate the cords.

2. The crico-thyroid, a triangular muscle passing obliquely upwards and outwards from the front of the cricoid cartilage to the lower border of the thyroid cartilage, causes the thyroid to move downwards and forwards over the cricoid, and thus produces tension of the vocal cords.

3. The arytenoid muscle passes from one arytenoid cartilage to another, and causes them to approximate, and hence helps to close the glottis.

4. The lateral crico-arytenoids pass from the upper margin of the cricoid to the outer angle of the arytenoids, and cause the arytenoid cartilages to rotate inwards. These muscles are *adductors*, antagonists of the posterior crico-arytenoids, and help to close the glottis.

5. The thyro-arytenoid muscles run parallel to the vocal cords from the thyroid to the arytenoid cartilages, and tend to relax the vocal cords.

6. The muscular fibres covered by the aryteno-epiglottic folds of mucous membrane help to close the glottis and depress the epiglottis, and the thyro-epiglottic muscle also tends to depress the epiglottis.

These muscles are all supplied by branches of the vagus, the crico-thyroid by the superior laryngeal, and all the others by the recurrent laryngeal. Now, since the great cause of paralysis is a lesion involving the origin or trunk of a nerve supplying a muscle, it is necessary in considering the paralyses of the larynx to bear in mind the origin and course of the vagus and its laryngeal branches.

The vagi having their deep origins in a grey nucleus at the lower part of the floor of the fourth ventricle, start from the lateral tract of the medulla, and, being joined by fibres from the glosso-pharyngeal and spinal accessory, pass through the jugular foramen, and down the neck within the sheath of the carotid vessels lying between the internal jugular vein and the internal and common carotid arteries as far as the root of the neck. The right nerve crosses the subclavian artery between it and the subclavian vein, while the left, lying between the left carotid and subclavian arteries and behind the left innominate vein, crosses in front of the arch of the aorta. The right recurrent laryngeal nerve arises in front of the subclavian artery, winds from before back around the subclavian, and ascends obliquely to the side of the trachea behind the common carotid and inferior thyroid arteries. The left recurrent laryngeal nerve arises in front of the arch of the aorta, and winds from before back around the aorta, close to the junction of the transverse and descending portions of the arch, and just beyond the junction with it of the obliterated ductus arteriosus, and then ascends to the side of the trachea. Both nerves ascend in the groove between the trachea and œsophagus, and enter the larynx behind the articulation of the inferior cornu of the thyroid cartilage with the cricoid. It is a matter of great clinical importance to bear in mind how the course of the vagi in the neighbourhood of the origin of the recurrent laryngeal nerve differs on the two sides. The left recurrent has its origin, so to say, much deeper in the thoracic cavity than the right, and encircles the aorta just beyond the main branches of the arch. This part of the aorta lying deeply is not, as it were, very accessible to direct clinical observation; but by the fact that disease of this part often causes injury to the left recurrent laryngeal nerve we are often enabled from the impaired functions of this nerve to infer disease in the neighbourhood of the junction of the transverse and descending parts of the arch of the aorta. Once more reminding you that disease, injury, or pressure upon the recurrent branches of the vagus, or of the trunk of the nerve superior to their origins will cause paralysis of the laryngeal muscles, we will consider the appearances produced by these paralyses.

In a normal larynx the vocal cords are of a pearly whiteness, and appear of an equal width on either side (about one-eighth of an inch). The chink between them runs directly in the middle line. During deep inspiration the cords separate widely, the tips of the arytenoid cartilages recede from each other, and the aperture of the glottis assumes a somewhat lozenge-shape, like an ace of diamonds truncated at its lower end.

During phonation (as when we ask the patient to say "Ah") the cords approach each other, and almost meet in the middle line, and the tips of the arytenoid cartilages approach each other so as to be almost in contact. If we ask a patient alternately to take a deep breath and say "Ah," we see how vigorous the movement of the vocal cords is in health. If the patient can sing, and we ask him to ascend the scale, we see, as the note gets higher, the chink between the cords get narrower, but in a degree which is scarcely perceptible. During the utterance of very high falsetto notes the processus vocales of the cords are seen to touch each other, and the chink between the anterior part of the cords gets wider.

I will here remind you that failure of movement of the cords may be produced by causes other than nerve injury, such as—(1) Mere muscular weakness, as in anæmic conditions and emotional causes; (2) functional nerve troubles, as in hysteria and some forms of stammering; (3) direct injury to the muscles by inflammation above or beneath them, and consequent impairment of their nutrition; (4) disease of the crico-arytenoid articulations; (5) mechanical impediments to free movements, such as swelling of the mucous membrane, or the presence of polypi or warts, or, as I have actually seen, one cord may be glued in one position by the tenacious muco-pus covering the mucous membrane.

The cords on either side may be unequally exposed. This may be due to a swelling of one false cord preventing a full view of the true cord beneath, or it may be caused by a loss of the power to adduct the cord which is least exposed, or to abduct the cord which is most exposed. When the cords are unequally exposed, and the glottic chink runs obliquely instead of directly in the middle line, we may be sure there is failure of movement on one side or the other. On asking the patient to say "Ah," we may notice that there is a *failure more or less complete to approximate the cords*. They may remain motionless, with the glottic aperture open nearly to the full, or the cords may make an attempt to approach in a tremulous, hesitating manner. This is due to muscular weakness in the adductor muscles, and is almost always brought about by anæmia. It is very common in hysterical women, but also occurs in males. The most marked case I have seen was in a boy after one of the acute specifics, whose larynx showed an extreme degree of anæmia. Cure the anæmia and the trouble gets well.

One vocal cord may be seen to move vigorously while the other remains stationary. This is the most common and the most important of the laryngeal palsies, because it indicates, in the majority of cases, disease or injury of the recurrent laryngeal nerve on the side of the immovable cord. It often happens that phonation is normal in these cases, because the

healthy cord when adducted overpasses the middle line, and comes into nearly perfect contact with its fellow. This palsy is far commoner on the left side than the right, and is then generally due to an aneurism of the transverse part of the arch of the aorta. So often is this the case that it should be a rule of practice, whenever the palsy is seen, to make diligent search for aortic aneurism. In every case of obscure chest symptoms, with deep-seated, shooting pains, &c., the larynx should always be examined, to ascertain if there be any failure of action of one cord. This should be a matter of routine never to be departed from, for the inaction of the cord may precede every other symptom, and may occur without there being either hoarseness or cough to direct attention to the larynx. If I were asked to name the chief service which the laryngoscope had rendered to medicine, I should unhesitatingly reply that it was the facility it had given us for the diagnosis of the early stages of aortic aneurism. I need not say that pressure upon the vagus in its recurrent branch by tumours of any kind or by disease of the nerve will cause the paralysis. Aneurism, however, remains *the* cause *par excellence*.

We occasionally see a *paralysis of the abductors* of the vocal cords due to a failure of contraction in the crico-arytenoidei postici muscles. With the laryngoscope we see that when the patient takes a deep breath (or rather attempts to do so, for very full inspirations are not possible in this condition) the vocal cords do not separate as they do in health, although when he expires forcibly the glottic clink may be somewhat widened by the forcible separation of the cords by the outgoing blast. During attempts at phonation the approximation of the cords is perfect, and the voice is normal. If this form of paralysis persists, the adductors not being antagonised, the cords gradually approach each other, so that the patient's life is endangered owing to the difficulty in drawing air through the closed glottis. It is caused by a failure of one group of muscles, and is more often due to local trouble, such as necrosis of the cricoid cartilage, and consequent involvement of the neighbouring muscles in the inflammatory process, than to nerve lesions. It sometimes appears to be "functional," and has also been seen complicating chronic nervous diseases, such as locomotor ataxia.

Besides these common and well-established forms of laryngeal paralysis, there are others which are less common. *A paralysis of the crico-thyroid muscle*, the tensor of the cords, has been described; and it is alleged that the border of the cords appears wavy and slack. I have seen a wavy condition of the cords, but have regarded it as being caused by chronic catarrh and impairment of the elasticity of the cord. The crico-thyroid being supplied by the superior laryngeal nerve, the sensory nerve of the larynx, one would look for evidence of impairment of sensation in these cases.

A paralysis of the arytenoideus and a consequent failure of the arytenoid cartilages to approximate during phonation have been described.

Before leaving the subject of laryngeal paralyses, I will enumerate some of the chief causes of the *nerve lesions* to which they are due. These are—

1. Central lesions, such as: (*a*) Bulbar paralysis, (*b*) locomotor ataxia, (*c*) Cruveilhier's atrophy (?). It is not often that the laryngeal symptoms are very marked in these conditions, and the laryngoscope is generally required to make out the want of activity in the laryngeal muscles. 2. In some rare cases of lead palsy there have been laryngeal paralyses. 3. In "diphtherial" paralysis. 4. Pressure on the trunk of the vagus in the neck by tumours of any kind. 5. Pressure upon or stretching of the recurrent laryngeal nerves by (*a*) aneurisms; (*b*) mediastinal tumours; (*c*) pleuritic thickenings about the apices of the lungs; (*d*) growths involving the œsophagus and implicating the recurrent laryngeal; (*e*) any tumours of the neck.

With regard to spasms of the larynx, these are more a matter of inference than direct observation; and I shall reserve the discussion of them till a later period.

We have now finished the *inspection* of the mouth and larynx, and we may proceed to consider the *auscultation* of these parts. In auscultation the stethoscope is of little or no use, and the facts to which I wish to draw your attention are the various sounds emitted by the vocal apparatus as they strike our unaided ear.

First, as to derangements of speech. In speech there are two factors—viz., *phonation* and *articulation*: the production of the sound and the moulding of the sound into words. Either or both of these functions may be deranged.

Phonation is the work of the larynx. It is caused by the vibration of the vocal "reeds" (misnamed "cords") set in motion by a blast of air driven past them, just as the "reed" or lamella of a concertina is set vibrating by the bellows. Now for the production of a normal tone with the larynx it is necessary: (1) that the cords should be of their normal texture and thickness so as to vibrate easily; (2) that they should be brought almost into complete contact with each other so that the merest chink only exists between them; (3) that the normal tension of the cords should be maintained; (4) that the blast of air driven between them should be sufficient to cause a full vibration. Now if any of these four factors of phonation be at fault, we get a deficiency or an alteration of the normal tone of the voice, and the patient is either *aphonic* or *hoarse*.

In *aphonia* the voice may be reduced to a scarcely audible whisper, and it is caused either by a failure of the vocal cords to approximate, as in hysterical or anæmic aphonia, or by a failure of the proper blast of air, as in conditions of great exhaustion. In hysterical aphonia you will observe that the patient makes no great effort to emit a sound. The lips move, but no sound issues from them. The absence of effort on the part of a patient otherwise in tolerable health is almost sufficient for the diagnosis of the cause of aphonia. Aphonia may be produced by emotional causes, and the phrase "struck dumb with emotion" is common enough in newspapers and works of fiction. Aphonia—i.e., absence of phonation without alteration of quality—is a rare condition. *Hoarseness*, on the other hand, is met with every day, and is the commonest of all symptoms of laryngeal disease. It may arise from very different conditions; whenever it is present the laryngoscope should be used as a matter of routine, and it may be said that the chief use of the laryngoscope is to determine the cause of hoarseness. Hoarseness is of two kinds. It may be complete, as when the voice is reduced to one prolonged stridulous whisper; or the voice may be mainly hoarse, but bursts into tone as it were for short, transient moments. This latter variety I have called *mixed hoarseness*. When present it always indicates that the cause of the hoarseness is such as can be overcome by effort, or is movable.

Alteration in the texture of the cords is a common cause of hoarseness. Mere hyperæmia, or the slight thickening caused by catarrh, or the greater amount of thickening produced by chronic inflammation or syphilitic infiltration prevents the proper vibration of the cords and produces hoarseness. The accumulation of tenacious mucoid secretion upon the cords and between them prevents this vibration and interferes with the blast of air, produces hoarseness, and adds to the voice other vibrations, which are not vocal. In laryngeal catarrh due to any cause this condition exists, and the hoarseness is often "mixed" as I have called it, because when the mucus is removed either by a cough or a laryngeal brush, the voice becomes normal until the secretion reaccumulates. Brushing out the larynx with various astringent solutions has been commonly practised in chronic laryngitis, whether of a simple, tuberculous, or syphilitic nature. You have often seen patients come into the throat department absolutely hoarse; you have seen me take a brush dipped in an astringent solution, and pass it down to the vocal cords, the brush returns with a lump of mucus adhering to it, and the patient probably has a violent fit of coughing and expectorates another lump. By this means an obstruction to the proper vibration of the cords is removed, and the patient, whose voice becomes normal, or almost normal, conceives a great veneration for laryngeal mirrors and curved brushes, and looks in wonderment at the lump of mucus which has been removed. Of course, in chronic cases the hoarseness returns in a few hours, and possibly the passage of the brush may have rather intensified the causes of the catarrh. There is no doubt that the laryngeal brush has been much over-used, and I would here warn you that the over-use of an instrument is liable, especially in private practice, to bring the operator and his art into disrepute.

The cords may fail to approximate from various causes, the chief of which is muscular weakness and paralysis. When the cords fail to meet the patient tries to produce a sound by increasing the force of the blast of air from his lungs, and the result is hoarseness. We lately had a boy in the out-patient room who had been suffering from hoarseness, and whose condition, diagnosed elsewhere as laryngitis, had been treated by the application of counter-irritants and the administration of so-called "antiphlogistics." The laryngoscope showed great anæmia of the larynx, and proved that the cause of his hoarseness was a failure in the

power of the adductors. Fresh air, good food, and iron soon removed his trouble.

When one cord alone is paralysed there is generally hoarseness at first, and there is always occasional hoarseness. It is remarkable to find how hoarseness disappears in these cases after a time. The reason, however, is plain. It is, that the healthy cord, which at first fails to come into apposition with its fellow cord, does so easily later on, because in adduction it over-passes the middle line of the larynx and touches its paralysed fellow. It may be also that the tension of the paralysed cord gradually improves, owing to the fact that the crico-thyroid muscle (supplied by the superior laryngeal nerve) is unopposed by its antagonist (supplied by the paralysed recurrent laryngeal nerve).

The proper approximation of the vocal cords may be prevented by growths, whether simple or malignant, arising from them or projecting between them. This is a condition at once made clear by employing the laryngoscope. One often sees an hypertrophied, and, perhaps, ulcerated fold of mucous membrane in the inter-arytenoid space projecting between the cords and preventing their free movement. Swelling of the false cords may be so great as to prevent the approximation of the cords.

The normal tension of the cords may not be maintained, or the tension of one cord may not be maintained, and thus we get hoarseness more or less complete. I have seen one instance, and only one, in a case which I saw in consultation with Mr. Tweed, in which the cord presented a wavy edge instead of a straight one during phonation, and the voice had a certain husky, tremulous, bleating quality, which was very characteristic. Whether this want of tension in one cord was produced by want of power in the crico-thyroid or by chronic catarrh I could not determine.

If the voice be very much used, and especially if it be very much used in foul atmospheres, such as are usually found in ill-ventilated theatres, churches, concert-rooms, and drawing-rooms, the muscles which move the cords, and especially the tensors, become tired and the musical quality of the voice gives place to hoarseness or huskiness. This is first observable during the emission of high notes, because the proper high degree of tension of the cords is not maintained. This form of singer's hoarseness is brought about by fatigue of the vocalising muscles, and it is important to remember that this fatigue is most easily produced in over-heated, foul, enervating atmospheres, and it is not surprising that fine tenor singers shrink from committing vocal suicide in the wretched rooms in which they are often expected to sing.

Failure of the proper blast of air may be caused by obstruction below the cords, as by tumours pressing on the trachea, or cicatricial contraction of the larynx or trachea. In cases of wound of the trachea, in which nearly all the expired air escapes by the wound, the consequent aphonia may be almost absolute. In conditions of great weakness the blast may be deficient in force, and in cases of extreme emphysema there is always an impairment of the quality of the voice.

Phonation may be fairly good, but the patient may be nearly or quite incapable of altering the pitch of his voice. This shows want of muscular power. It is present in cases of labio-glosso-laryngeal paralysis, where both the cords are paralysed. It was present also to a marked extent in a patient whose case was recorded by Dr. Yeo and Mr. Lister. This patient's vocal cords were completely removed by the operation of thyrotomy, but notwithstanding this fact, he managed, after his recovery, to speak fairly well in a low-pitched monotone. By the kindness of Dr. Yeo I examined the patient's larynx, and it was most interesting to observe how phonation was produced by an approximation of the aryteno-epiglottic folds. It is generally taught that the vocal cords are essential for phonation, but this case proved how completely their functions might be assumed by other parts.

I have shown sufficiently how the symptom "hoarseness" may depend upon many different pathological conditions, and I will now pass on to consider alterations in the second factor of vocalisation—viz., "articulation."

Articulation is brought about by muscular movements of the jaws, lips, cheeks, tongue, and soft palate. At the onset of this subject one may remark that articulation may be performed in many ways, and after removal of parts which we might consider essential the patient will accommodate himself to circumstances in a remarkable way. Thus it is well established that people can talk almost perfectly without a tongue. In the same way unilateral paralysis of the muscles of articulation has wonderfully little effect after the lapse of a short time, and the loss of the teeth is soon compensated for. On the whole, defects of articulation are not of such clinical importance as to warrant one in spending much time upon the subject, and I will merely indicate some of the more important points, and refer those who want more information to Dr. Bristowe's excellent lectures on the subject, delivered last year at the College of Physicians.

The vowel sounds (pronounced in the French manner) *a, é, i, o, u*, depend upon the relative size of the oral opening and the oral canal. Thus "a" requires the mouth wide open, while "u" necessitates an extreme contraction of the orbicularis oris. The sound "aw," as in "hawk," necessitates a contraction of the pharynx.

Certain consonants demand a large amount of lip contraction—such as "p" and "b." Others demand vigorous movements of the tongue—such as the vibratile "r," in which the tip of the tongue is set vibrating; "t" and "d," in which the tip of the tongue is brought forcibly against the teeth, and also "ss" and "th," in which the tip is protruded between the teeth. Lastly, the hard "g" and "k" demand a considerable amount of pharyngeal contraction.

A knowledge of these facts enables us to employ test words for the detection and localisation of the seat of defect in articulating power. Thus the words "Pooh! pooh!"—or, better still, "Booby"—will serve to test the lip power, as they involve the utterance of a labial consonant and the labial vowel sound. Such a word as "thrill" will especially test the tongue power, and "hawk," or "gawk," will test the power of pharyngeal contractions.

In no condition is the power of articulation so completely lost as in bulbar paralysis or labio-glosso-laryngeal paralysis. Here lips, tongue, palate, and larynx are all affected, and the patient is reduced to the utterance of monotonous inarticulate sounds. Unilateral paralyses or atrophies interfere singularly little with articulation. A sore place upon the tongue effectually stops the utterance of such words as "thrill," "tittle, tattle," &c.; but we have lately had a girl attending the out-patient room who could say all these words perfectly, in spite of very marked atrophy of the right side of the tongue. The loss of the front incisor teeth while the lateral remain puts an end to the proper utterance of "F's" and "V's," although the patient soon learns, unconsciously, to compensate for this as for every other defect. When all the teeth are lost the rim of the gums takes their place, and articulation becomes perfect again.

The presence or absence of nasal resonance is a point worthy of attention, and one capable of affording a considerable amount of valuable information. The nasal cavity, as you are aware, is shut off from the oral cavity by the pressure of the soft palate against the pharynx during the utterance of all sounds, except those of "m," "n," and "ng."

The labial sound "b," as in "bab," the dental sound "d," as in "dad," and the palatal sound "g" (hard), as in "gag," which are all normally produced with the nasal cavity shut off, become altered to the naso-labial sound "mam," the naso-dental sound "nan," and the naso-palatal sound "ngang," when the nasal is not shut off from the oral cavity. Salter gives the following as a sample of this kind of utterance, the words "Both brothers drove in a gig" becoming "Moth mrothers nrove in a nging." Now, whenever we hear this kind of utterance, we may be sure that there is a difficulty in shutting off the nasal cavity, and we shall expect to find: (1) a cleft palate, (2) a perforation of the hard or soft palate, (3) a paralysis of the soft palate, or (4) a mechanical obstacle to the movement of the soft palate.

It is common to find the reverse of what we have been describing, and to hear sounds which should be nasal uttered without their nasal quality. In this case "m" becomes "b," "n" becomes "d," and "ng" becomes (hard) "g," and (again to borrow a sample from Salter) the sentence, "The afternoon was fine, though the morning was rainy," becomes "The afterdood was fide, though the bordig was raidy." This is the well-known pronunciation of the sufferer from a common cold, owing to the swelling of the nasal mucous membrane and the impossibility of driving air through the nasal cavity. Whenever we hear this pronunciation we may be sure that the nose is shut off from the mouth by: (1) a common cold; (2) by the adhesion of the soft palate to the pharynx; (3) by the presence of nasal polypi or other tumours; (4) by post-pharyngeal abscess. The lesson to be learnt from these facts is that whenever we have excess or deficiency of nasal resonance we should at once search for the cause.

Lectures
ON
THE RELATIONS OF SARCOMA TO CARCINOMA.

Delivered at the Royal College of Surgeons in June, 1880,

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LECTURE I.—PART II.
TUMOURS OF THE TESTIS.

IF in many points the foregoing cases differ widely from one another, there are yet some points common to all. And if a larger number of cases of sarcoma and carcinoma be compared, I think it will be found that the characters which they possess in common are more numerous than those by which they are distinguished. For example, the conditions of occupation and social position, of marriage, of previous health and family history, appear to exercise no greater influence on the production of one than of the other disease. The histories of both diseases are the same with regard to cause, rapidity of growth, pain, and previous inflammation. In shape, contour, and consistence their characters are very similar, except that sarcoma is sometimes very hard. Nor is the relation of the tumour to the scrotum or the condition of the cord helpful in diagnosis. Even after removal it is often impossible to distinguish between sarcoma and carcinoma unless the microscope be employed, for the position of the growth may be the same in either case. Each may contain cysts, each may exhibit an encephaloid appearance; and, although the presence of cartilage proves, as I believe, that the tumour is a sarcoma, the absence of cartilage does not prove it to be a carcinoma. Regarding the characters in which they differ, again I think it will be found that the cases of sarcoma differ more markedly from one another than do the cases of sarcoma from those of carcinoma. Unfortunately, I have not an equal number of cases of each disease to compare together; and, still more unfortunately, a large proportion of the few cases of carcinoma here collected is incomplete. Of these sixteen cases, although eight are known to have died, complete autopsies were performed only in three, and a partial section in one. Again, the total duration of disease in some of the eight patients who died is uncertain, for two died from the effects of the operation of castration, and the duration of another case up to the time of operation is unknown. Yet it is possible to ascertain some important points, which I now may shortly indicate. There is only one under twenty years of age—a child of two years, whose testis was removed after it had been enlarged three months. Sections of the tumour presented so marked an alveolar structure that I believed it to be a carcinoma. Nearly two years later the patient died, as it appeared, from caries of the spine, of which many of the signs were present. But there was no abscess; and no post-mortem examination was permitted. The case is described by Mr. Marsh, and its minute characters are figured in the Transactions of the Pathological Society.[1] Although after twenty years no age was free from its occurrence, carcinoma of the testis was most frequent between the ages of thirty and forty or thirty and forty-five. It never affected more than one testis. The tumour was unmixed with other tissues. Affection of the glands was found in every case in which the abdomen was opened, and was strongly suspected in another patient, whose case I have already more fully mentioned. In two of the three complete autopsies the lungs and liver were the seat of secondary growths; in the remaining case these organs were exempt, while the suprarenal capsule was diseased.

The cases of sarcoma are twenty-eight in number. Most of them are round-celled, only three such as can be classed with neither of the first two groups. Of these twenty-eight cases seventeen died, and on these seventeen subjects eleven post-mortems were performed, while in one case the abdomen only was examined. The disease was most frequent at two periods of life: the first period extending from birth to ten years old; the second corresponding with the period during which we have just found that men are most liable to carcinoma. I do not pretend to explain why both classes of tumour occurred so frequently during the third decade of life, a time during which inflammations of the substance of the testis are perhaps less frequent. But I imagine before the age of ten two causes concur to render carcinoma rare: first, the little liability to cancerous degeneration of epithelium of any part at so early an age; second, the inactive condition of the epithelium of the testis before the age of puberty. Both testes were occasionally affected by sarcoma. Many of the tumours were mixed with cartilage or other tissues. The glands were not diseased in every case in which examination was made, but were enlarged and sarcomatous in nine of the twelve cases in which the abdomen was opened, and the supposition of their enlargement was so strong in two other cases as to amount almost to certainty. Secondary growths occurred in the lungs in more than half the cases; in the liver only in a single case. The bones or skin, or both, were affected in five instances.

If now, instead of thus comparing all the cases of sarcoma with those of carcinoma, we compare separately the round-celled and the spindle-celled tumours with the carcinomas the results are more striking. The *round-celled* tumours occurred in persons of any age between eight months and sixty-four years, but most often before the age of ten or between fifty and sixty years. Both testes were not infrequently affected. None of the tumours contained cartilage or any organised tissue other than fibrous. Glandular affection was absent in two of the six cases in which autopsies were performed, and the lungs were the seat of secondary growths only in a single instance, yet in five cases there was wide-spread generalisation in the bones and skin or subcutaneous tissue. And with the skin the liver was in one patient affected. Several of these round-celled tumours, especially in those cases in which both testes were affected and generalisation was extensive, were examples of what has been called lympho-sarcoma or lymphadenoma of the testes, chiefly on account of the delicate reticulum, which can be discerned amid the cells.

The subjects of the *spindle-celled* sarcomas were from ten months to forty-five years old, but the disease was far most frequent in persons under ten and from thirty-five to forty-five. In no case were both testes affected. Cartilage was present in greater or less quantity in more than half the cases. The total duration of disease was rather longer in patients with spindle- than in those with round-celled sarcoma. Several of the former lived three years, most of the latter only two. Affection of the glands occurred in every case in which the body was examined after death, and in two cases in which no examination could be made, a like affection was indicated by the presence of a large tumour in the pelvis and abdomen. The lungs contained secondary growths in every case but one, and in that case a large tumour occupied the situation of the kidney. In no instance was there extensive generalisation similar to that occurring in the fatal cases of round-celled tumours.

A careful summing-up of the chief differences existing between carcinoma and sarcoma of the testis and between the varieties of sarcoma shows that, apart from those of structure and of age of occurrence, they are for the most part differences in the manner of their generalisation. Whether these differences of generalisation are due merely to modifications of structure or to some other cause I cannot now determine, if indeed I am ever able to do so. But I think I can offer an explanation of one seeming anomaly—namely, of the departure in certain cases from the general rule that the lymphatic glands are affected in both diseases. The very fact of secondary enlargement of the glands in sarcoma of the testis is contrary to the general law laid down in many text-books teaching that sarcoma does not produce affection of the lymphatic glands. But if this law be true of sarcoma generally—a point to which attention will be particularly directed in the study of tumours of other tissues and organs—it is so thoroughly reversed in the present instance that we are even obliged to seek some explanation of those cases in which affection of the glands was absent. They are three in number,[2] two round-celled, one mixed, and they present one

[1] Vol. xxvi., p. 128.

[2] Nos. 5, 13, 28.

feature in common in which they differ from all the other fatal cases—their extremely short duration. The whole course of the disease in two of them was hardly longer than two months, and of the third was only five months. Castration was not performed on either of the two patients whose disease pursued the most rapid course, therefore the exception to the rule cannot be traced to operation. The only other case in which the total duration was less than a year was that of a child four years of age, who died about seven months after the first appearance of the primary tumour, and in whom the lumbar glands were sarcomatous and much enlarged. But the duration of this case, short as it is, is half as long again as the duration of the longest of the other three, and three times as long as that of either of the two shortest. The inference is inevitable that these three patients died ere sufficient time had elapsed for affection of the glands to be developed, and that had they lived a few months longer each of them would have been the subject of glandular affection. I have already spoken of the slow progress of glandular disease, in reference to the boy under Mr. Lant Smith's care, and the same case may serve to illustrate its sometimes tardy onset.

CARCINOMA TESTIS.

No. of case.	Age.	Cause.	Duration before operation.	One or both testes	Affection of scrotum.	Condition of cord.	Part of testis affected	Tumour simple or mixed.	Total duration.	Recurrence in stump.	Affection of glands.	Lungs.	Other parts of body.
1	50	Blow in perinm.	15 mths.	1	Adherent	Thickn'd.	All	Simple	—	—	—	—	—
2	30	0	24 ,,	1	Adherent	Thickn'd.	Body	,,	24 mos.	—	(?) Yes	—	No post-mortem exam.*
3	49	—	36 ,,	1	Adherent	0	All	,,	42 ,,	Yes	—	—	No post-mortem exam.
4	24	Kick	16 ,,	1	0	—	All	,,	—	—	—	—	—
5	34	(?) Blow	14 ,,	1	0	0	Body	,,	—	—	—	—	—
6	39	0	6 ,,	1	0	Thickn'd.	All	,,	7 mos.	—	—	—	No post-mortem exam.*
7	36	—	6 ,,	1	—	Thickn'd.	All	,,	—	—	—	—	—
8	38	—	— (?)	1	—	—	—	,,	(?)	Yes	Yes	Yes	Liver, right breast
9	55	—	48 ,,	1	0	Thickn'd.	All	,,	—	—	—	—	—
10	2	—	3 ,,	1	0	—	All	,,	24 mos.	0	—	—	No post-mortem exam.
11	21	0	No opern.	1	—	Thickn'd.	All	,,	118 ,,	—	Yes	Yes	Liver
12	54	(?) Friction	11 mths.	1	—	0	Body	,,	—	—	—	—	—
13	45	—	15 ,,	1	Ulcerated	—	Body	,,	24 mos.	0	Yes	0	Supra-renal capsule
14	33	0	30 ,,	1	Adherent	Thickn'd.	Body	,,	36 ,,	0	Yes	—	Partial post-mortem ex.
15	72	—	12 ,,	1	—	—	All	—	—	—	—	—	—
16	42	Squeeze	24 ,,	1	0	0	All	Simple	—	—	—	—	—

* Deaths from causes connected with operation.

SARCOMA TESTIS.

	No. of case.	Age.	Cause.	Duration before operation.	One or both testes	Affection of scrotum.	Condition of cord.	Part of testis affected	Tumour, simple or mixed.	Total duration.	Recurrence in stump.	Affection of glands.	Lungs.	Other parts of body.
Round-celled.	1	35	0	7 mths.	1	0	(?)	Body	Simple	12 mos.	0	—	—	No post-mortem exam.
	2	19	0	5 ,,	1	0	(?)	All	,,	—	—	—	—	—
	3	10	0	No opern.	2	0	—	All	,,	24 mos.	—	Yes	0	Subcut. tissue, bones
	4	51	Friction	36 mths.	1	0	0	All	,,	—	0	—	—	—
	5	50	—	1 ,,	1	—	—	Epidid.	,,	5 mos.	0	0	Yes	Liver, skin
	6	61	0	60 ,,	1	0	0	All	,,	—	—	—	—	—
	7	64	(?) Strain	2 ,,	1	0	—	Body	,,	—	—	—	—	—
	8	57	—	12 ,,	2	0	Thickn'd.	All	,,	21 mos.*	Yes	Yes	0	Bones, subcut. tissue
	9	57	—	12 ,,	2	0	Thickn'd.	All	,,	42 ,,	—	—	—	No post-mortem exam.
	10	3	—	13 ,,	1	0	(?)	Body	,,	24 ,,	0	Yes	0	0
	11	5	Bruise	3 ,,	1	0	0	All	,,	12 ,,	0	Yes	—	Partial post-mortem ex.
	12	34	0	2 ,,	2	0	0	All	,,	—	0	(?)	—	Bones
	13	8 mos.	—	No opern.	2	0	—	Body	,,	2 mos.	—	0	0	Bones, heart, subcut. tissue, penis
Spindle-celled.	14	10 mos.	—	4 mths.	1	Ulcerated	—	All	—	—	—	—	—	—
	15	25	—	(?)	1	—	—	All	Cartilage	—	—	—	—	—
	16	34	0	3 mths.	1	0	0	All	Cartilage	—	—	—	—	—
	17	6	—	3½ ,,	1	0	0	All	Simple	23 mos.	0	(?) Yes	—	No post-mortem exam.
	18	26	0	14 ,,	1	0	Thickn'd.	All	Cartilage	24 ,,	Yes	Yes	0	Kidney
	19	40	Bruise	8 ,,	1	—	0	All	Cartilage	36 ,,	0	Yes	Yes	—
	20	45	(?) Blow	5½ ,,	1	0	—	Body	Cartilage	—	—	—	—	—
	21	40	—	—	1	—	0	Body	Simple	(?)	0	Yes	Yes	—
	22	45	0	72 mths.	1	0	—	Body	Simple	—	—	—	—	—
	23	37	Bruise	24 ,,	1	0	Thickn'd.	Body	Cartilage	20 mos.	Yes	Yes	Yes	—
	24	10	0	5 ,,	1	0	0	All	Simple	36 ,,	0	(?) Yes	—	No post-mortem exam.
	25	4	0	1 ,,	1	0	0	All	Cartilage	7 ,,	0	Yes	Yes	Spleen
Mxd.tum.	26	40	0	72 ,,	1	0	—	All	Simple	72 ,,	—	—	—	No post-mortem exam.*
	27	40	Blow	48 ,,	1	—	—	All	Cart. and muc. tiss.	—	—	—	—	—
	28	40	0	No opern.	1	0	Thickn'd.	All	Muc. tiss.	2½ mos.	0	0	Yes	Interior of heart

* Death from causes connected with operation.

In connexion with the frequent combination of cartilage with spindle-celled tumours, let me try and rescue a group of tumours, which I believe to be quite innocent, from an opprobrium which most unjustly rests upon them. I mean the cartilaginous tumours of the testis. A pure cartilaginous tumour growing from bone, or indeed from such soft parts as the parotid is generally regarded, and with justice, as a quite innocent tumour. But some cartilaginous tumours, of the testis especially, have pursued a course so unexpected and so decidedly malignant that at the present time we look with suspicion upon all cartilaginous tumours of the testis, and feel that we best consult the interests of our art and our individual credit by refusing any but the most qualified opinion regarding the future of the subjects of such tumours. One of the best and most complete cases of malignant enchondroma of the testis is that related by Sir James Paget in the Medico-Chirurgical Transactions for 1855. Studied alone it appears incontrovertible that this case was one of pure cartilaginous tumour running a rapidly malignant course, and at the period of its publication I can scarce perceive how any other explanation of it could be given. But studied as one of a group the members of which form a series of gradations between the hard and soft tumours its pathology becomes more evident. I will not recount the case in full, but may recall its salient features that the proof of my argument may be rendered more complete. The patient was thirty-seven years of age. In January, 1855, his testis was removed on account of an enlargement which had been noticed about two years. At the time of the operation thickening of the spermatic cord was

found to extend nearly to the internal ring. The tumour consisted of two main masses one above the other, and of small growths lying in the inguinal canal. The main masses were composed of nodules, tortuous, cylindriform, and knotted pieces of cartilage, embedded in a tough filamentous white connective tissue, and in the upper swellings were many thin-walled cysts, containing clear pellucid fluid. New growth could easily be distinguished in the lymphatics of the cord. Examined with the microscope the cartilage proved to be hyaline, the opaque white and softer structures showed generally a filamentous and nucleated substance and two chief structures were found in all. The axes of the connecting threads and the central substance of the growths which they supported were composed of densely nucleated substance; their exterior of a filamentous substance composed of fusiform and thin caudate corpuscles laid parallel with one another. On the 1st of May, 1855, the patient died. Lymphatics filled with new growth were traced along the course of the spermatic vessels to a large gland containing a cystic cavity lying beside the inferior vena cava. From this gland the lymphatics passed up close beside the vein, and at one point the vein was penetrated by an outgrowth proceeding from the lymphatic vessels. Both lungs were full of large cartilaginous tumours, growths of which were discovered on the inner coat of many branches of the pulmonary artery.

M. Dauvé relates a somewhat similar case in his monograph on enchondroma of the testicle.[3] A man, twenty-six years old, noticed a small hard tumour at the lower part of the right testis in June, 1859. This tumour, or the testis, slowly increased in size, until in March, 1861, it measured eight by eleven centimetres, was enormously heavy, exceedingly hard, and uniformly ovoid. Castration was performed, when the testis was found to be transformed into a large tumour composed of cartilage. As in the last case so in this, the cartilage presented numerous nodules and tubes or cylinders of pearly aspect, resembling in their form and disposition the tubules of the testis. In the lower part of the tumour there was less cartilage, more fibrous tissue; and this also was the case in the epididymis, enlarged like the body of the testis. Here and there in the cord were masses of grey soft tissue made up of fibrous elements. A few days after the operation a fungous growth appeared from the stump of the cord. Later the left lower extremity began to swell, and on June 18th, about three months after the operation, the patient died. On examination after death the pelvic and lumbar glands were enlarged, soft, and grey in colour. A large suppurating tumour existed in connexion with the left kidney, but the other viscera of the abdomen, and those of the thorax, were healthy. These secondary tumours of the abdomen contained no cartilage which could be detected with the unaided sight, but with the microscope small portions were discovered. Further than this no account of the minute structure of these tumours is recorded, for the autopsy was delayed during the hottest days of a brilliant summer, and decomposition was already far advanced.

With these two cases a third may be included to complete the series. A groom, thirty-five years of age, was castrated by Mr. De Morgan for the removal of a tumour of the right testis.[4] The growth dated from a squeeze the testis had sustained against the pommel of his saddle eight months previously. Great swelling and ecchymosis followed the injury, which subsided in two months, but left the testicle enlarged and hard. At the period at which it was removed it formed an elastic, nearly globular swelling, 5½ inches in its long diameter. It contained numerous cysts, varying in size from a small pea to a walnut, most of which contained liquid, but some were occupied by solid growths. They were lined with epithelium, and their walls were composed mainly of connective tissue, but in the connective tissue were scattered small deposits of cartilage. The cord was not thickened; and although the tumour was of rapid growth, and the mingling of tissues was of doubtful import, it was hoped the disease was not malignant. For a year the patient remained quite well, but from that time his health began to fail, and more than two years after the operation he died. The cord was still healthy, but a large cystic mass occupied the right iliac fossa and lower part of the abdomen. Both lungs contained scattered cystic tumours, with nodules of cartilage in their substance; and the pleuræ were studded with firm pink-white masses of small size. Singularly enough, the secondary growths both of the pelvis and of the lungs contained more cartilage than the primary tumour; but their soft parts consisted almost entirely of spindle cells.

The first and second of these cases are such as would generally be termed enchondroma of the testis; but if the third case had not been so described in the Transactions of the Pathological Society, it certainly would not have occurred to me to consider it a cartilaginous tumour. Since, however, it has been thus described, I am content so far to admit its claim as to group it, for the purpose of illustration, with the two more characteristic tumours; for I believe all these tumours are essentially of a like nature, and should be referred to the same class or group.

When a tumour—a carcinoma for example—becomes changed at various points into a fatty or cheesy substance, we regard this substance, and probably with justice, as the result of fatty or caseous degeneration of the tissues of the tumour. And even when it occurs so largely as to affect the moiety or more of the substance of the tumour, we should hardly think of describing such a tumour as a fatty or caseous growth. It still remains, as it always was, a carcinoma, some of the features or even capabilities of which may be affected by the degeneration of its substance, but whose tendencies will still be those of carcinoma. So, when a tumour—a sarcoma for example—presents here and there tiny nodules or plates of cartilage, we regard these tiny masses, and I believe with justice, as the result of organisation of the tissues which form the tumour; for cartilage and sarcoma tissue belong both to the connective tissue series. The material from which one of them is formed may equally be transformed into the other. I do not pretend to explain the law in accordance with which—in a tumour of the testis for example—one portion of this material is transformed into spindle-cells, another into cartilage, and perhaps a third portion into fibrous tissue. Nor do I know why the conjunction of cartilage with sarcoma is so frequent in spindle tumours of the testis; so rare as to be almost unknown in round-celled tumours; unless perhaps the impulse to organisation, which in the former results, for the most part, in the production of spindle-cells, and is there arrested, is sufficient at certain points to produce a more perfect tissue, and is even so powerful in some sarcomas as to transform nearly the whole mass into cartilage or fibrous tissue.

But this transformation of its substance does not produce a proportionate effect upon the nature of the tumour; it remains what it always was—a sarcoma—the features of which may be concealed, but whose tendencies will still be those of sarcoma. If the description of the three tumours mentioned above be referred to, it will be seen that neither of them is composed solely of cartilage. Each had a softer part or parts, consisting in the first case of what may fairly be described as round and spindle-cells, in the second of "fibrous elements," in the third of what is, somewhat loosely, called "connective tissue." It was this soft cell-tissue which in the first case extended up within the lymphatics into the pelvis. And in the second and third cases this soft tissue formed nearly the whole of the secondary tumour, so much so in one of them that the presence of cartilage could only be detected with the microscope. This latter circumstance is the more noteworthy because the primary tumour was almost precisely similar in the amount and disposition of its cartilage to the primary tumour described by Sir James Paget. This absence of organisation, as I should regard it, of some parts of the primary and of the secondary tumours, is often spoken of as if it were a sarcomatous degeneration of a tumour more highly organised. But there are several reasons opposed to this theory, among which I may mention, as perhaps the strongest, that the most recent tumours and most recent portions of the tumours are the least organised, or are not organised at all, and that there is no evidence of the previous existence of cartilage in the parts which are said to have thus degenerated. If the words "sarcomatous degeneration" are intended to convey that the secondary tumours are in their structure more decidedly embryonic than the primary growth, the only objection which can be raised against the expression is that it is not applied correctly.

No argument, however, will be so convincing as a comparison of these three cases first with one of pure cartilaginous tumour of the testis, next with those of the group of spindle-tumours, among which I have taken the liberty to include them, as Nos. 18, 19, and 23. This is an example of pure cartilaginous tumour.[5] It had been growing four

[3] Mém. de la Société de Chirurgie, tom. vi., p. 291.
[4] Pathological Transactions, vol. xviii., p. 132; vol. xx., p. 331.
[5] St. Bartholomew's Museum, Series 28-64.

years in the scrotum of a young man, twenty-two years old. Castration was performed early in 1875, and less than a year ago I saw the patient alive and in perfect health. The tumour is of small size, is composed of hyaline cartilage, which in its aspect and disposition resembles that of the malignant tumours, but there is no softer tissue present save a thin layer of fibrous tissue around and between the portions of cartilage.

On the other hand, it will be seen that the age of these patients is that at which sarcoma is common; that they do not differ from the other cases of the group in their relation to the scrotum, their position in the testis, their total duration, or their affection of the lymphatic glands.

The only characters of difference are the thickening of the cord in two of them, and consequent affection of the stump, and the affection of the kidney rather than the lungs in one—the former character an expression of greater rather than of less malignancy of the primary tumours; the latter distinguishing the case in which it occurred as much from the cartilaginous as from any of the other cases.

On the question of operation in cases of sarcoma and carcinoma I can say but little. For, while the few cases in which no operation was performed were all fatal, their fatality was a necessary condition to their enrolment in these tables; on the other hand, the large majority of deaths were of persons who had been castrated. But as the operation is not very dangerous to life, and as either disease is probably certainly fatal unless interfered with, the balance of opinion must be decidedly in favour of castration, especially as the good health of a few fortunate persons is recorded long after operation.

A PLEA FOR THE CLASSIFICATION AND DETAILED STUDY OF MENTAL AND SENSORY CAUSES, OR FORMS, OF SLEEPLESSNESS.

BY JOSEPH MORTIMER GRANVILLE, M.D.

SLEEPLESSNESS—other than that occurring as a symptom, or in the course, of physical disease—is one of the commonest troubles the medical practitioner is called upon to treat; and it is not the least embarrassing. It is protean in its forms, and so complex and obscure are its "indications," that the treatment it receives is practically a recourse to the expedient of stupefying the brain by opiates, chloral, or bromide of potassium, annulling the consciousness and mimicking natural sleep by an artificially-induced state, which may in some cases end in sleep, but is not itself sleep in any physiological sense, being a drug-created stupor. Thus is the difficult task of precise diagnosis avoided; while we compound for the discharge of the duty of special and direct treatment by overpowering the energies of self-consciousness. One of the first steps towards establishing a more satisfactory condition of matters, and introducing a better system of treatment, must be a deeper insight into the causes or forms of sleeplessness. I desire to bring under the notice of the profession a proposal for the classification of these causes or forms in, what seems to be, a natural order.

It may now, I think, be fairly assumed that neither Fleming, Cappie, Durham, Hammond, Sommer (arguing from the results of experiments made by Pettenkofer and Voit), nor any other of the many investigators who have tried to solve the enigma of sleep on physiological principles, has entirely succeeded. Each of these inquirers has contributed something to the sum of knowledge we possess about sleep; but, after all, the conclusion at which Vulpian arrived, simultaneously with other observers in this country, is probably the true one—namely, that the modifications of blood supply and pressure, which have in turn been supposed to be the causes of sleep or wakefulness respectively, are their concomitants or consequences. In short, the changes shown to take place in the rate of the circulation, and the size of the vessels of the brain, during sleep are the results, *not the causes*, of that state. Even in relation to the so-called "sleep" produced—or induced—by drugs, it seems probable that Vulpian is right when he sums up the inferences to be drawn from his own elaborate and careful experiments as follows:—"Le sommeil chloralique n'est donc pas dû, plus que celui qui est provoqué par l'éther, le chloroforme ou l'opium, à une anémie ainsi produite dans le cerveau. Nous pouvons donc dire que l'action hypnotique des diverses substances, que nous avons étudiées, sous ce rapport, s'exerce sans que les effets qu'elle produit puissent être rattachés à des modifications vasculaires des centres nerveux. Ces substances n'agissent pas, en effet, sur ces centres, par l'intermédiaire des vaso-moteurs, comme on l'a admis sans la moindre preuve directe; c'est sur les éléments anatomiques mêmes des centres nerveux que porte leur influence. Ce sont ces éléments qui sont directement modifiés, probablement parce que les agents en question y pénètrent et y produisent une altération histo-chimique." In any case we are, I think, driven back from our speculations in physiology, upon the study of the mental and sensory phenomena in the search for a deeper and more accurate knowledge of sleep as a rhythmical function of life. Until new light is thrown on the subject of the actual and intimate causes of sleep we may most usefully direct our attention to the subjective experiences and objective characteristics of the act or state of sleeping; and it will help our inquiry, as well as facilitate the practical task of discovering remedies for aberrations of sleep, to classify the proximate causes, or forms, of sleeplessness.

There are two primary groups of manifestations. 1. The psychical, or mental, including such "sensations" as may arise from the mind making intentional or conscious use of the sense-organs. 2. The automatic, or sensory, comprising those intellectual acts or processes which are performed by habit, repetition, or what is called instinct, together with all the sensations which are involuntary and uncontrolled—or uncontrollable—by the will. To one or the other of these groups every cause or form of sleeplessness, not essentially morbid, may be referred. The annexed Table, a simple arrangement of bare clinical notes, will make my meaning evident. I am compelled by want of space to give only one of the tables comprehended in my scheme, and in the reproduction of that I have been obliged to omit all but a meagre sentence under each heading to mark its purport. The reader will, however,—if he approve the principle—have no difficulty in recalling the results of his own experience as to the symptoms and methods of treatment here indicated in rough outline. It is simply on the adoption of a precise method of classification I am anxious to insist.

Group I., as indicated in the Table, includes the causes or forms falling within the domain of the higher Consciousness, and probably located in the supreme cerebral centres, psychical in their character, and to some extent, at least at the outset, under the control of the will. They may be recognised as standing in close relation to some one of nine faculties or departments of consciousness—viz., thought, sensation (inclusive of the senses generally acting in concert), sight, taste, smell, hearing, touch, conscious muscular movement, and visceral-consciousness (that is, consciousness of what is going on in the viscera, or "feelings" and impulses taking their rise in or from the viscera). In respect to each of these forms of mental consciousness there are two varieties of Condition and two of State, *condition* being transitory, *state* more permanent. The consciousness may be accidentally thrown into a particular "Condition"; or it may, by persistence of an exciting cause or weakness, acquire a particular "State." Thus there may be the Condition of "not being sleepy, or unable to sleep," or that of "being too much engrossed to sleep"; and there are the States of "irritability" and "inability." Under the heading "Not being sleepy, or unable to sleep," in relation to *Thought* there may be simple wakefulness, with a disposition to think on any subject that suggests itself indifferently; or, in the absence of any special topic of formal consideration, imagination may disport itself wildly. In relation to *sensation* as a whole, there may be a condition of watchfulness or mental expectancy generally, the mind being, so to say, on the alert, keeping the senses awake; or in relation to the senses severally there may be troubles—e.g., *sight*, mental watching, with intolerance of the dark, and expectancy or fear; *hearing*, mental listening, awe-stricken or hopeful, with impatience of silence and wakeful imaginings of sound; or, disturbance in connexion with sensations of *taste*, of *smell*, of *touch*; longings or impulses for *muscular movement*, with a chafing sense of the restraint imposed by

OUTLINE OF A SCHEMA FOR THE CLASSIFICATION OF MENTAL AND SENSORY CAUSES, OR FORMS, OF SLEEPLESSNESS.

"Le sommeil général est l'ensemble des sommeils particuliers."—BICHAT.

GROUP I. RELATING TO THE CONSCIOUSNESS: THE DISTURBANCE LOCATED IN, OR REFLECTED UPON, THE SUPREME CEREBRAL CENTRES.

Faculties causing or concerned in the Sleeplessness.	Sleeplessness apparently due to the Conditions expressed by—				Sleeplessness apparently due to the States of—			
	"Not being sleepy, or unable to sleep."		"Being too much engrossed to sleep."		"Irritability."		"Inability."	
	Symptoms.	Treatment.	Symptoms.	Treatment.	Symptoms.	Treatment.	Symptoms.	Treatment.
Thought and imagination.	Thought acute; imagination active when external objects are excluded.	Interdict dozing by day. Discharge the energy of the cerebral centres by special work, such as reading aloud before going to bed.	Thought or fancy weary, but unable to get rid of some special subject which has taken hold of the mind.[2]	Encourage thought on the disturbing topic by *day*, and thus let the mind *discharge itself before* going to sleep.	An irritable state set up by disorderly or prurient thought. When no longer restrained by the surroundings excitement occurs.	Good and sufficient brain work by day; quiet, sober, and healthy thought in the evening.	A sort of mental night-mare. "Inability" to control thought. Ideal spectres haunt the imagination.	The performance of a task which can be achieved almost automatically — e.g., reciting verses from a dramatic poem.
"Systatics, irritation or inertness of the mind extending to the muscles or external senses; or of the muscles or external senses extending to the mind."—MASON GOOD. Sensation (general and inclusive).	The senses kept on the alert by the will; watchfulness, mental expectancy of general sense impressions.[1]	Change of the surroundings. Give the mind a sense of security by any simple arrangement. A warm bath before sleep.	Expectancy or imagination of a special set of sensory impressions haunts the mind.	The special sensation engaged must be dealt with in detail, as below. Discharge the motor energy before sleep.	Mentally induced hyperæsthesia. When the attention is diverted, this form of irritability generally ceases.	Measures to divert the attention. The use of tepid bath or spray, with cold sponging and brisk rubbing.	Mental, or mentally induced, anæsthesia occurs at night when the influence of the surroundings is withdrawn.	Sponging with *very hot* water (not a bath) immediately before going to bed.
Sight (mental or voluntary).	Watching, with intolerance of the dark. Real objects being invisible, images of thought are too vivid.	Apply a bandage over the eyes before the light is extinguished. The Will thus inhibits both mental and physical sight.	Thought so engaged with particular pictures of memory or fancy that it cannot put them away.	Careful and slow inspection of a series of highly coloured pictures or portraits will displace the disturbing pictures of thought.	Irritability of mental sight, which renders the sufferer liable to spectres of fancy, with intolerance of light.	Gazing on objects moving slowly and monotonously just before trying to sleep.	Inability to see mentally may be occasioned by inability to see physically, or it may be the effect of a mental weakness.	Sleep in well-lighted room surrounded with *near* objects. Reading or thinking of subjects easily *pictured* by thought.
Hearing (mental or intentional).	Listening, with intolerance of *special* noises or sounds, and impatience of complete silence.	Stop the ears with cotton-wool before trying to sleep. This inhibits the act of hearing, and gives rest.	Expectancy or imagination of special sounds, as a cry or noise which has disturbed or affrighted.	The introduction of sounds which will help to divert the attention, as music or the ticking of a clock.	Irritability of mental or physical hearing, with acutely sensitive intolerance of sounds.	Cotton-wool. Avoid making resonant shell of ear in placing it on pillow. Fatigue the hearing before sleep.	Inability to hear, real or imaginary, may be a cause of sleeplessness.	Avoid sleeping on a partially deaf ear. A watch under pillow will often relieve, or the loud ticking of a clock.
Touch (in its direct relation to mental impressions).	Irritation caused by weight or texture of bedclothes. One form is the sense of "falling" when going to sleep on the back.[3]	Warm bath, followed by cold douche or spray, and lying for some little time flat on the back on a couch before getting into bed.	Special expectancy in relation to touch. Common in children, and the aged in whom mental dispositions of childhood revive.	To break up organised expectations or "feelings," change the surroundings; or yield for a time to the demands of consciousness.	Irritability, with hyperæsthesia of the skin, common in certain forms of mental disease, or established by habit.	Warm bath, followed by cold sponging, and voluntary tolerance of the symptoms, will generally restore quiescence.	Anæsthesia of the surface mentally induced, often hysterical, occurring at night, because the mind is thrown in on itself.	The use of a bath and rubbing with towels of rough texture.
Taste (mental or voluntary).	Seldom general, but sometimes occurring, and then leading to an untimely craving for food.	The use of a flavoured lozenge will relieve and prevent the craving for food.	Special tastes may be heightened at night, or a taste ordinarily present be only then recognised.	The use of a lozenge giving the flavour desired, or covering that which is distasteful.	Irritability of this sense. Often caused by rough or decayed teeth or ulcers on palate.	This may generally be met by cleansing the mouth and teeth with hot and then with cold alum-water.	Inability to taste may occur in persons who have smoked excessively, or in the aged.	The use of a strong lozenge: e.g., capsicum or camphor. Special treatment for local affection.
Smell (mental or voluntary).	An acute sense of smell often causes sleeplessness. It may be real or imaginary.	Holding nose over steam before going to bed; as a palliative use scent or snuff.	A highly sensitive condition in respect to a *particular* odour, real or imaginary.	Use scent gratifying the desire, or covering the unpleasant odour, real or imaginary.	Irritability of the sense of smell, continuous or recurring, may be specific.	The treatment must be specific, and directed to the cause. For relief use snuff.	Inability to smell, real or imaginary, is an occasional cause of sleeplessness.	Local applications of a strong, stimulating character — snuff or douche.
Muscular-consciousness.	Fidgeting or twitching. When it occurs in muscles of hip-joint, shoulder or elbow, causes dream of jumping or falling.	Care should be taken to avoid supporting the body on a particular joint or limb. Warm bath relaxes muscles; cold braces.	The Will set on grasping a particular object or maintaining a particular position; sleep impossible unless impulse be satisfied.	Intentional abandonment of the idea inhibits the muscular action. Posture requiring some other action will counteract it.	A highly excitable state of the muscular system, choreic or hysterical, may arise from want of muscular work by day.	Special treatment or fatigue of the muscular system by particular form of exercise.	A consciousness like that accompanying paralysis, sometimes due to the weight of clothing. Mental night-mare.	Remove all bonds and burdens, and place body and limbs in a half-flexed and free position before sleeping.
Visceral-consciousness.	The attention may be morbidly directed to any one of the viscera or their functions.	Satisfaction of normal needs and impressions before lying down. Avoid late meals.	Special sensations in the viscera, or feelings engendered by them, may prevent sleep.	The cause of these feelings should be investigated and treated directly. Divert attention.	Irritability of the visceral-consciousness common in hypersensitive and hysterical persons.	Treatment must be specially adapted to remedy or relieve the particular state or to remove the cause.	A feeling of inability to discharge special functions may cause sleeplessness.	Special treatment for the cause. In cases of hysterical or mentally disturbed states, a late meal relieves.

[1] "*Agrypnia Chronica*: Habitual wakefulness; mind tranquil; attention alive to surrounding objects; mostly common to advanced age; found also occasionally in excessive fatigue, &c."—MASON GOOD.
[2] A form of anaphia which impresses the mind with a feeling that the body has lost its support; caused, I believe, by partial stagnation of blood in the posterior columns of the spinal cord.
[3] "*Agrypnia Entonica*: Sleep retarded by an inordinate excitation of the mind to a particular object; listlessness to surrounding objects."—MASON GOOD.

quiescence; or there may be mental impressions arising, or imagined, in connexion with some one or more of the visceral organs, which I propose to class as forms of *visceral-consciousness*. Again, the heading "Being too much engrossed to sleep" will include *thought*, busy or exhausted with a special task or subject of which it cannot rid itself: the *sensations* generally engrossed with a supposed duty of watchfulness, or severally engaged with and unable to leave a particular subject of mental *sight, hearing, taste, smell*, or *touch*; the *motor* faculty too busy with a special act to sleep, or the *visceral-consciousness* dwelling wakefully on a particular organic function. In like manner under the general heading "State," there may be continuous or recurring "Irritability" of any one or more of the several faculties, of the class which obtains when—by imagining—a "nervous" person so works on his mental sense of sight or hearing, that every wave of light or sound disturbs him; or, again, there may be conscious "Inability," with a distressing sense of powerlessness to perform some function, as when the knowledge that *hearing* is difficult so distracts or distresses the mind that sleep is impossible, the Consciousness worrying itself with the analysis of every imperfectly recognised sound, and thus creating a special cause or form of mental sleeplessness.

Group II.—which I have been unable to tabulate, but in outline resembles that presented—includes the common forms of sleeplessness related to the Sub-consciousness, being organised *habits*, probably located in the centres or combinations formed by the repetition of mental processes, and only partially under the control of the will, having passed into the class of "automatic" activities over which the lower or sub-consciousness holds sway, although—to revive a good old term—they may be *consensual*. The classification of this group is identical in its outlines with that indicated for Group I. Under the headings "Not being sleepy, or unable to sleep," and "Too much engrossed to sleep," we have the automatic faculty of *thought* exercising by the force of habit individualised methods, and carrying out special processes, of reasoning on every topic or subject that occurs to the mind. A clerk will reckon and calculate, a lawyer argue, a divine preach, a writer compose, in obedience to the law of habit, sleep being impossible. It is this form of disturbance which makes persons say they are "too tired to sleep," the truth being that the controlling faculty of Will is too weary to inhibit the automatic faculty, and they cannot go to sleep in a natural way, and are therefore sleepless. The *senses*, generally, may be actively watchful and wakeful, also in obedience to the law of habit, as often happens after a lengthened period of watching by a sick bed and the formation of a strong habit of keeping on the alert; or any one of the senses may be individually wakeful from custom. The sensory and muscular systems may be sleepless. Cases illustrative of this class of disturbances are of frequent occurrence; e.g., after a long voyage nervous or sensitive persons cannot sleep without the noise of the wind and waves, and that habitual balancing of the body which is induced by sleeping in a berth, or even in a swinging cot or hammock. Habits of function in relation to the *viscera* are also very common, and may be the causes of sleeplessness. Thus the bladder or intestine may contract a habit of discharging its contents at particular periods; and, partly from habit, and in part from the vascular and nerve changes incident to "going to sleep" or "awakening," there may be experiences in connexion with the organs of special function which disturb, and greatly distress if they are not explained. A not uncommon trouble of this class which occasions much distress and anxiety, when its nature and cause are unrecognised, is priapism occurring in the early morning. This is, I believe, generally the result of irritation of the cord in the process of its awaking; although sometimes it may be the effect of reflex action excited by urine in the bladder. Under all these forms of Condition the faculty which is in the habit of working at night cannot sleep, and being unable to perform its accustomed labour disturbs the whole body, by fruitless and fidgety endeavours. States of "Irritability" and "Inability" affecting the automatic sub-consciousness are likewise common causes of sleeplessness, as when a habit of sleeping in the dark renders the dullest light a cause of sleeplessness, although there is no trace of intolerance of light by day.

The key-note of the classification proposed may be found in Bichat's aphorism, which I have set at the head of the table, "Le sommeil général est l'ensemble des sommeils particuliers." The several sleeps composing general sleep do not commonly occur simultaneously or last during equal periods. The order of their occurrence in "falling asleep" seems to be—1, muscular-consciousness; 2, sight; 3, hearing; 4, smell; 5, taste; 6, thought; 7, touch. This is a broad statement, and will be found only approximately accurate; the succession varying with the individual organism and habit. The order of awakening is, again speaking generally, inverse. The rest enjoyed by each system contributes its share to the grand result, and the relative proportions of the several sleeps compounded determine the character of the phenomenon as a whole. It follows that the converse is true with regard to the nature and causes of sleeplessness. The general character of the "sleeplessness" from which a patient suffers, and the plan of treatment most likely to be successful in his cure, can best be ascertained by recognising the particular *cause* or *form* of the wakefulness; and this may be most readily made out by noting the prominent symptoms, and determining the class and group of the natural classification to which they belong. If anyone should contend that the phenomena I have noted and classified are not causes but simply symptoms of sleeplessness, he may regard them as *forms* of the trouble, and it will still be open to him to accept, at least in principle, the grouping suggested.

The differential diagnosis of the two groups of causes or forms of this trouble is of the highest importance, because the principles and methods of treatment are not identical for the corresponding conditions and states, or even for what appear to be precisely similar symptoms or indications. Thus, for example, the characteristic feature of the phenomena in Group I. is the element of Self-consciousness which declares itself, or may be detected, as a conspicuous part of each experience. The Will has a limited, but *only* a limited power, over the functional or organised habits of the sense organs, the muscular and visceral systems, and, even, over those tracts or departments of the brain which are concerned in sub-conscious cerebration. It can sometimes inhibit particular actions or interrupt the discharge of special energies—or energy striving to act in specific directions—which habit has liberated. It can, so to say, block the line of least resistance. The Will is not, however, directly or actively concerned in the causes or forms of sleeplessness classed in Group II., unless it interposes, because every process of thought or action which has become organised by repetition and become a *habit*, has passed out of the domain of the supreme faculty of the Consciousness into the series of automatic activities controlled by the Sub-consciousness. Whereas the will *is* directly and actively concerned in the causes or forms of sleeplessness included in Group I. It follows that while the treatment for the disturbances in Group II. must be indirect, and so aimed as to operate through the senses chiefly, that adopted for the relief of the troubles classed in Group I. must, in some way, act immediately, or, at least, very directly, upon the Will and Consciousness. Mental diversion will relieve the symptoms of the *first* group, whereas it is not unlikely to intensify the wakefulness arising from troubles of the *second* group, although at a glance these may seem identical in form with the others. The intensifying of automatic actions when the self-conscious attention is diverted is well understood. The restraint of the Will being withdrawn, "impulse" or "instinct" has unqualified control of the organised brain and nerve-centres. Another matter not so commonly recognised is the fact that if the Will be pressed or permitted to interfere for the amendment of a troublesome *habit*, it generally increases the trouble by irritating the nerve-centre or combination which has been formed, by repetition, for the performance of the particular act or process it is desired to control. The centre not having been constructionally disciplined for control by the Will resents the authority that faculty now tries to exercise over it. If an expert and practised pianoforte player were to try to make the fingering of each chord a voluntary act, he would be unable to play, and throw himself into a fever of excitement. This is what happens when the essential difference between the two classes of phenomena classed in Groups I. and II. is not perceived, and the voluntary method which is likely to be useful in the one case is misapplied in the other. The discrimination is not always easy, but it is indispensable that it should be made. The history of the case and the known effects of Attention in relation to the seeming cause of the wakefulness will generally enable the practitioner to determine the group to which a particular phenomenon or symptom belongs; but he must make the discrimination for himself, because nothing is more unwise or

[1] "*Agrypnia Chronica*: Habitual wakefulness the mind with a feeling that the body has lost its support; causeless, I dare say, [illegible] restlessness to surrounding objects."—MASON GOOD.
[2] A form of anæphia which implies [illegible]
[3] "*Agrypnia Entonica*: Sleep retarded by an inordinate excitation of the mind to a particular object; [illegible]

conducive to failure in these cases than to ask leading questions. The examination should be so conducted as to avoid giving the patient the slightest clue to the nature of the investigation pursued. Even when the cause of sleeplessness has been recognised, it is, except in rare instances, undesirable that the patient should be informed of the precise nature of the disturbance. If the cause belong wholly to the second group, and is a matter of habit, it is almost always essential that he should be kept in ignorance of the trouble from which he suffers, while it is treated through the surroundings or indirectly.

I am not asking medical men to over-estimate, still less am I wishing them to *treat*, symptoms, but to search for the causes of disease by tracing back to their several sources the divers forms of an affection which may spring from any one of a large number of disturbances. There is no means of getting at a disease, and acquiring an intimate and precise knowledge of its nature, except by studying the formulæ of its manifestations; and there is no safe way of selecting a method of treatment except by observing carefully the indications for treatment which are supplied by these same formulæ. I know well that the bane of modern science is the exaltation of the analytical over the synthetical method of research; but here we are face to face with a symptom too often regarded as a disease. We do not know what it is. It has never been, so to say, picked to pieces, and we have hitherto treated it *en bloc*. Not being able to ascertain what it is keeps a particular patient awake, we exhibit a so-called "soporific," which will stupefy or intoxicate him until he falls into a state of unconsciousness, and, in the end, *perhaps*, sleeps! The practice is not, possibly, less scientific, but it is certainly not one whit more so, than to treat pains in the epigastrium with pepsin, without taking the trouble to inquire whether there is any organic disease, whether the food taken is digestible, whether it is properly masticated, or whether the patient is suffering from excess, or, it may be, starvation. We cannot proceed a single step on the way to treat Sleeplessness intelligently until its form, in each particular case submitted to us, is definitively ascertained, and the cause of wakefulness clearly made out; therefore, I plead for the recognition and classification of those ideational and sensory forms, or proximate causes, of sleeplessness which are too commonly overlooked.

London.

PAROXYSMAL OR INTERMITTENT HÆMATURIA IN A YOUNG CHILD FOLLOWING SUPPOSED INJURY.

By W. H. DAY, M.D.,

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J. L——, aged three years, a healthy and well-developed child, was admitted into the Samaritan Hospital under my care on Nov. 14th, 1879, having passed blood in her urine twenty-four hours previously, *unaccompanied by pain*. The urine then became quite clear up to the time of her admission. Blood had been noticed in the urine for a month past, but this last attack alarmed her parents.

History.—The mother stated that a year ago the child fell downstairs, and for the first time in her life she passed blood in her urine for three times succeeding this accident. The bleeding did not recur till July, 1879, when it lasted only for one day; then five weeks elapsed, and it recurred once more for one day only. There was no further return till shortly before admission. The father and mother were both healthy, and had always resided in London. There was no history of measles, scarlet fever, or constitutional syphilis. The heart, liver, spleen, and lungs were healthy; the temperature was normal and the bowels regular. The child complained of pain when pressure was made over the loins, but no decided indication of suffering was shown when pressure was made on either lumbar region.

On the day following admission the urine was of acid reaction, sp. gr. 1022; it had the appearance of muddy water and threw down a thick deposit, which was rendered clearer by moderate heat; it remained slightly clouded on boiling, and did not become clear by nitric acid. The colour was due to the admixture of uric acid crystals with blood, showing that there was hæmorrhage from the kidneys, but there was no free clot. On a microscopical examination the deposit was found to consist almost entirely of uric acid crystals, with a few epithelial casts and red corpuscles.

The child was put on a milk diet, and kept in bed. A mixture of bichloride of mercury, with the tincture of the perchloride of iron, was ordered three times a day.

Nov. 19th.—There was a deposit of rather dark, coagulated blood at the bottom of the test tube. Seven ounces of urine were passed in the twenty-four hours.

20th.—Urine smoky and albuminous. Six ounces passed during the night and day. A mixture of tincture of perchloride of iron, with diluted hydrochloric acid, was ordered.

22nd.—Urine smoky, sp. gr. 1022, acid, throwing down a turbid deposit, the lower part of which was reddish; bowels regular. She occasionally cried at night from pain across her loins, which prevented her from sleeping, the pain generally lasting about half an hour.

24th.—A good deal of bronchial catarrh. Iron mixture discontinued, and squill and ipecacuanha ordered for the cough.

27th.—Cough better. Since the iron mixture was given up more blood was passed in the urine, some specimens being like port-wine and water. The average quantity of urine passed during the past three days was 11½ oz., 7½ oz., and 9½ oz.

Dec. 9th.—On an average since last report the child passed daily from 10 oz. to 14 oz. of urine, having a sp. gr. of 1024, some specimens being clear, and others containing blood of a dark port-wine colour, settling at the bottom of the vessel in a coagulated mass. In one of the specimens there were numerous hyaline casts, and an abundance of free renal epithelium with uric acid crystals. Constitutionally the child appeared well, the tongue was clean, she never vomited, and the bowels acted twice a day. There was no puffiness of the face nor anasarca. Two teaspoonfuls of a mixture, containing gallic acid and sulphuric acid, were ordered to be taken three times a day.

15th.—The urine has continued perfectly clear since the 9th without any deposit of blood. Sometimes the morning urine was perfectly clear, that passed in the evening throwing down a copious whitish deposit, which became clear on boiling (lithates).

Jan. 8th, 1880.—No return of blood in the urine, on an average the patient passed 15 oz. of urine during the twenty-four hours. General health good.

14th.—Urine very clear, acid, unchanged by boiling; no blood or albumen. To omit all medicine.

Feb. 3rd.—The urine remained perfectly healthy since last report, although she had been up and about the ward. She left the hospital on this day.

13th.—Readmitted, passing bright-coloured blood with her urine.

April 1st.—There was no return of blood except fourteen days previously, when a small quantity again appeared in the urine, and since then it had varied considerably, some specimens containing blood and some none. For the last ten days the urine remained clear. The child was pallid, but there was no sign of anasarca, no headache or disinclination for food. Heart-sounds normal. The gallic acid mixture was resumed. Milk diet.

25th.—The urine was perfectly clear; sp. gr. 1028; acid reaction; in every respect normal. The child left the hospital with directions to continue the gallic acid mixture, and to return again if blood made its appearance in the urine.

Three weeks after leaving the hospital she had only passed blood in the urine once, and then she had catarrh and cough.

Remarks.—This case is very interesting from several points of view. Looking at the history, the absence of the exanthemata, and the general good health of the parents and the child, it does appear that the injury was the starting-point of the hæmorrhage, which came on for the first time the day following the accident, and that once originated, absolute rest and a milk diet were necessary to arrest it. Only falls are such common accidents among children that the injury in this case might be a pure coincidence. With regard to medicine, the remedy that did most good—in fact, which alone never failed to control the hæmorrhage—was gallic acid. At no time was there any rigor or elevation of temperature, nor any diminution in weight. The

chief noticeable change was an increase of pallor in the patient, which was no doubt in a great measure due to confinement to bed and the suspension of all animal food.

Dr. Greenhow has recorded some very interesting cases of "intermittent hæmaturia." In one of his cases, a boy eight years and a half old was first seized with hæmaturia when two years of age. The attacks were preceded by shivering and thirst, and whenever the boy got chilled the urine became of a dark colour, sometimes as though blood were mixed with it, at other times like black beer with a froth upon it. "During the attacks the boy generally had stiffness and weakness of the legs, so that he could scarcely walk, and his feet sometimes became of a purple colour, and swelled so much that he could not put on his shoes; his ears also frequently became cold, purple, and painful to the touch. More rarely his hands swelled and became purple during the attacks. The first urine passed after the shiverings had always been dark-coloured, the second less so than the first, and at the third or fourth micturition the urine generally resumed its normal appearance."[1] This case differs from some of those recorded by Dr. Greenhow and others in the absence of a malarious history, rigors, sweating, and febrile symptoms. The child, with the exception of being rather pale, was perfectly healthy-looking, and there was an absence of sallowness which has been often observed in some of these cases, particularly when the hæmaturia has been associated with the oxalic acid diathesis. Dr. Greenhow regards the affection as a form of dyscrasia—a disease of the blood rather than of the kidneys. I should say that Dr. Greenhow's explanation given above was suitable to my case, whilst I do not altogether ignore the possibility of some injury being received when the child fell downstairs, thus exciting a degree of renal congestion which was the starting-point of the evil. The presence of free blood certainly points to intermittent renal disease as well as pure hæmaturia; still, in all other cases of paroxysmal hæmaturia the theory that no kidney affection exists has yet to be proved; for we must never forget, as Dr. Legg has reminded us, that no record exists of any examination after death of a patient who during life was subject to paroxysmal hæmaturia.

Dr. Godson[2] relates a case of paroxysmal hæmaturia in a little girl, two and a half years of age. Each attack was preceded by rigors. As in my own case, uric-acid crystals were found in abundance in the urine, and likewise gallic acid was administered with equally good results in both cases. According to Dr. Wickham Legg's exhaustive record of the literature of this disease,[3] uric-acid crystals have previous to Dr. Godson's case been observed in two cases only. The presence of free blood and the absence of initial rigors distinguish my case from most others. It may be considered as paroxysmal hæmaturia in the literal sense of the latter term; whilst the more frequent form, where rigors are observed and no red corpuscles can be found in the blood, is strictly hæmaturia.

Manchester-square, W.

INSANITY: ITS TREATMENT AND PREVENTION.

The Presidential Address for 1880 of the Border Branch of the British Medical Association,

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IT is difficult for one busied in the treatment of insanity himself to speak generally of the treatment in the country at large in an unprejudiced manner. I shall just tell you what I have noticed during the fifteen years I have studied and treated insanity, and afterwards touch shortly on the present treatment. I have noticed the following:—An increasing tendency to examine into the physical condition of the insane. To look for, and in the majority of cases to find, bodily causes for mental manifestations, and to keep careful and systematic records of cases, and in doing this to make use of instruments of precision available in medical practice, and a persistence in this in spite of the difficulty caused by the patient's state. An intelligent and accurate inquiry into the use of various therapeutical remedies, and this by not a few but many observers. A markedly greater interest in pathological research, and even without discussing the advantage of making post-mortem examinations in each case from scientific or educational points of view. The greater security given to the life of patients, and the safeguard from injury resulting from such a procedure, must commend it even to the non-professional mind. In 1878 out of 4715 deaths which took place in English asylums, 2349 autopsies were made. A greater tendency to give individual liberty to convalescents or patients who seem harmless, and at all to be trusted. A clearer idea as to the necessity of continued treatment and care in an asylum, and a consequent shorter residence after recovery in certain cases. A fuller realisation of the value of employment as an aid to recovery. An increase in out-door exercise, especially for female patients. In most well-conducted asylums nowadays few if any patients whose bodily health permits of it are restricted to the house, or what used to be called "airing yards"; and where these were walled in and devoid of all vegetation, where the patients saw nothing but the sky and the side of the asylum, this must have been a great advance, as some superintendents point out *in extenso* in their reports. To many of us it appears wonderful that such places should have been invented at all. A freedom from the sort of asylum horror which at one time existed at the terms "seclusion" and "restraint"; a conviction that the use of either when really requisite will not bring back their universal use; and a recognition that in certain forms of excitement, such as epileptic, and also delirious excitement in general paralysis, seclusion is not only permissible, but the safest and best treatment for the patient. A growing knowledge that hitherto the staff of attendants has been proportionately small for the work both of day and night nursing, and that, no matter how much may be written on the getting and keeping good attendants, yet, like most things, it resolves itself into a money matter. Facilities for all medical men becoming acquainted with insanity and its treatment, which at one time did not exist. Theoretical and practical teaching of insanity is now the rule in all medical schools, and the contiguous asylums are available for teaching purposes. For those who wish a further acquaintance with the subject there are numerous clinical clerkships easily obtainable, affording asylum residence and practical instruction. The present and future medical student will be almost culpable if he does not make himself fully conversant with at least certain portions of this subject.

Now as regards the *treatment* of the present day. In most if not in all asylums everything is done with the view of promoting the recovery of recoverable patients, and affording comfort, care, and safe keeping to those in whom recovery cannot be expected, and great amelioration in state is often brought about to the latter in health, habits, and mental condition by treatment and assiduous attention. It is quite recognised that cleanliness, order, discipline, personal tidiness, neatness and elegance of surroundings are all to be desiderated, and are important elements in the general treatment; but it has also to be kept in mind that with working patients engaged in farm and other manual labour, a spick-and-span appearance of person and attire, and a state of extreme polish and order as regards the wards, though it may gain ephemeral praise for the superintendent, can only be estimated at its proper value when considered along with the other working of the asylum as a whole. Dutch houses, though clean to a degree, are said to be wanting in comfort, when it is necessary to go in at the back door for fear of soiling the front door-steps. Unless the material comforts are considered, magnificent ball-rooms only very occasionally used, corridors with flowers seldom traversed by the patients, and grounds tastefully laid out and seldom frequented, do little to aid recovery or promote happiness in those whose life has to be passed in an asylum. County asylums are built and furnished for the care, comfort, and ordinary life of, principally, the working classes, not to excite the amazement and wonder of casual visitors.

Now as regards direct medical treatment. Few medical men believe that insanity—a disease which comes on slowly, which in the majority of cases has been produced by a breach of many of the most ordinary laws of health, and which in the vast majority of cases is found with the impaired bodily health to be expected from such a course of life—will ever be cut short by a dose of medicine, or cured instantaneously by any means. All are united in believing that

[1] Clinical Transactions, 1868, p. 44.
[2] Notes of a Case of Paroxysmal Hæmaturia. St. Barthol. Hospital Reports, vol. xiii., p. 165.
[3] On Paroxysmal Hæmaturia. Ibid., vol. x., p. 71.

patients should be placed in healthy localities with pleasant surroundings; that recovery of bodily health is the first step; that employment, recreations of various kinds, and even routine devotions are all means to the end. So far as I have read in asylum reports, asylums in this country have been very exempt from zymotic diseases, but several have suffered severely from diseases consequent on imperfect drainage. For the last few years this subject has received general attention, and I should think that enteric fever and erysipelas will soon be spoken of as diseases which used to occur in asylums.

I last year laid before you a *résumé* of my practice during the five years ending 1878, in dealing with the excitement met with in mania, puerperal mania, general paralysis, and epileptic insanity. I pointed out the variability of the duration of the attacks of excitement, even in repeated attacks in the same individual, and the necessarily extreme difficulty of accurate estimation of therapeutic treatment. I discussed the question of the value of sedative treatment by day and of hypnotics given at night to prevent undue waste in recent curable cases, and also in chronic patients, and the action of protracted out-door exercise, and its influence as a calmative by expending in muscular exertion the nervous energy which would otherwise eliminate itself in noise or violence. I also touched on other agents useful in treatment. I found that sedative treatment during the day was at times necessary to render patients manageable, but when used for any length of time the patient remained somewhat longer in a stupid or mentally clouded state after the excitement passed off.

In acutely excited cases, where sleep could not otherwise be produced, it should be caused artificially, but this treatment should not be long continued. In my experience chloral in twenty or thirty-grain doses given in sherry was the most certain sleep-producer and harmless, all that was wanted being to set the patient to sleep, not to cause continued drugged sleep. I gave corroborative evidence, based on six years' experience, as to continued treatment with bromide of potassium in reducing the number of fits and allaying irritability, the most disagreeable and difficult feature in epileptic insanity.

I also expressed myself very strongly as to the value of prolonged out-door exercise, that by it the necessity for sedative treatment is much diminished, and insomnia seldom present. I have since then conducted my practice in accordance with these views, and have had most satisfactory results.

So many careful and accurately recorded papers have appeared in the medical journals dealing not only with the sedative qualities of different medicines, but also their effect on the system as regards nutrition, &c., that I do not touch on the subject. I think, however, that the concourse of opinion of careful observers in asylum practice questions a direct curative action from sedative treatment, while quite admitting its use to enable an acute attack to be safely and more easily tided over.

In general paralysis no means of treatment hitherto adopted has much retarded, far less cut short, the course of the disease.

Delusions of a fixed character in persons otherwise possessed of mental capacity and in the enjoyment of good bodily health, have as yet proved an unsolved problem, and even after death we are left in the dark concerning their cause for the most part. Though each year, owing to increased care in treatment during attacks of excitement, fewer cases lapse into dementia, yet it is sad to think what a mass of human beings, well grown men and women who outwardly appear well, who, I have no doubt, have still their faculties though in a clouded and dormant state, wanting a something to bring them into action and subordinate them to an acting will, still remain monuments of our inability to prevent such a state, or to galvanise their mental powers into action. I believe we shall yet find a means of stimulating some of them into mental activity. Two forms of treatment emanating from the other side of the Channel call for notice. Dr. Ponza proposed a treatment by coloured light, light admitted through stained glass windows, the walls of the room tinted to match the coloured light. He found that keeping patients in red rooms was good for melancholia, blue rooms for excitement. He reported cases, strongly insisted on the value of the treatment, even in apparently hopeless cases of insanity. In one asylum that I know in England the treatment was tried without result. In France lately much has been written of the efficacy of metallic application externally in cases of nervous disease of a hysteric type—hystero-epilepsy. Numerous medical men have witnessed these applications and their good results. I confess myself sceptical of such forms of treatment; they savour to my mind of the records of Arabian physicians and sages. In this country all agree that though nervous affections of a hysteric character may originate from one locality or one set of organs, yet the treatment, founded on common sense and experience, should be general, to improve the bodily health, to use all moral means to make the patient live more outside herself, and get rid of perverted sensations, thoughts, and actions, and as far as possible to distract attention from the sources of such. Before I leave this portion of my subject I may briefly allude to two topics which are at present under consideration, and which may in future influence the treatment of insanity.

One is the entire separation of the recent from the chronic insane. No one would hastily give an opinion on such a subject without experiment. In the metropolitan district, where there are immense numbers of quiet demented, this mode has been found to answer well; but in counties, where the total amount of lunatics is under 800, I question the advisability of a separation on the ground of expense and difficulty of working. Chronic patients require better diet than the workhouse scale, and if you withdraw their working assistance, poor though it may be, from the asylum for recent cases, you greatly increase the cost of the latter. I believe up to 600 a mixed asylum works best. Many whose opinion is of value expect very shortly a change in lunacy legislation, which will affect private asylums, and also the boards of management of public asylums, giving in the latter a more direct representation to the ratepayers. The position of the medical proprietors of private asylums appears to me a delicate and difficult one, though it may be money-making, and I think if fair terms are offered, as certainly should be in a country like this if the State interferes, that medical proprietors should hail with joy any legislative interference which will free them from a position of difficulty and unmerited suspicion.

As to a change in committees of county asylums. From the humane and kindly, as well as from the economic (in the true sense) manner in which these institutions have been managed, and the feeling of security and faith in the good treatment of the inmates that is held in most counties, I do not believe that any material change will be made that will hamper the working or cause retrogression in treatment, especially in those asylums which are abreast of the times, and whose staff are conscientiously carrying out the proper aims of the asylums.

Before making any radical change in committees who have individually, with no sparing of time, trouble, or expense, devoted themselves to the carrying out of the Lunacy Acts in their respective counties, there ought, of course, to be an inquiry made into the present state of matters, and if changes occur proper provision for effecting such changes will surely be made. In a subject of such great importance to thousands unable in any way to see to their own interests, legislation ought not to be hasty, imperfect, or too tentative.

At first glance it may appear utopian to expect that insanity can be prevented by any means which are at present in our power; until lately, however, the same was said and thought about several other diseases. We know that an inherited faulty formation of bone may be prevented or lessened by proper attention to diet on the part of the mother during pregnancy and the child during growing life. That other inherited diseases, such as gout and rheumatism, may be warded off during the life of one generation, and the tendency to them reduced in the next by constant care and attention to habits and diet. That many ephemeral bodily diseases are the result of carelessness and indulgence is well known, even outside the profession. Every one knows the consequences of festal seasons, but I doubt whether the changes in structure of vital organs caused by excessive eating and drinking are properly realised, except by those who are in the frequent habit of making post-mortem examinations. Now, whether for treatment or prevention in dealing with purely physical diseases, physicians at once examine into, and, if possible, ascertain the cause. With a disease like insanity, which has mixed manifestations, which is strongly hereditary, which is often called into existence from a latent state by not one but many causes, and last, but of great importance, where the sufferer,

unlike what exists in most diseases, is unable to give an account of the invasion of the disease, of the variance in his habits of life from the normal, to account for this serious change in his condition and state,—in fact, in most cases, the principal actor in what has caused the disease is by the disease prevented from giving any information about it. This is a serious obstacle to research as to the causation of insanity, and it entails a necessity for greater and more careful investigation from collateral sources.

We know that old writers ascribe the absence of epilepsy in ancient days in Scotland to the castration in youth of all the males who took fits, and that by this the propagation of the disease was stopped. This treatment, though rough and against the sentiment of the present time, was no doubt efficacious. The shutting up in asylums of those who labour under mental disease to such an extent as not to be able to take care of themselves—weak-minded, erotic, and epileptic girls and youths—must undoubtedly stop what would be almost inevitable in these cases, the procreation of a nervously diseased set of illegitimate children. Even within the last thirty years or so was it the case that silly, weak-minded, or idiotic females, in whom the physique was at all developed, fell an easy prey to any seducer, and were often the parents of a succession of children, many of whom, if not all, were likely to be imbecile—at any rate, if they escaped at birth, far more likely than those of healthy descent to be affected by nervous disease at the critical periods of life. The present asylum system to a certain extent provides against this in cases which manifestly are quite unfit to be at large; but there are many of the class I allude to at large, spreading the mischief. So much for the prevention by transmission by those clearly insane or markedly weak-minded.

(To be concluded.)

REMOVAL OF THE RIGHT LOBE OF THE THYROID.

By F. A. PURCELL, M.D.,
SURGEON TO THE CANCER HOSPITAL, BROMPTON.

SARAH S. R——, single, aged twenty-three, a strawplatter, from Dunstable. About three years and a half ago this girl noticed a slight enlargement in her neck, most towards the right side. Since then it has been steadily increasing, giving no pain. General health good. Catamenial discharge regular. She knows other women in the neighbourhood who have enlarged thyroids, and a patient in the hospital from her neighbourhood has goitre. The water at Dunstable is chalky. She attended the out-patient department for eight months for goitre, during which time all the usual remedies (ointments, liniments, &c.) were studiously applied without diminution in the size of the swelling, but rather a slight increase. At her earnest solicitation she was admitted to the hospital to have the growth removed.

Upon admission there was a tumour about the size of a large duck's egg at the right side of the neck, extending from about the third ring of the trachea to the upper border of the thyroid cartilage, overlapped by the edge of the sterno-mastoid muscle, yielding an indistinct sense of fluctuation. Also some thickening of the isthmus of the thyroid body, the whole moving with deglutition; at the same time with a sense of free movability in itself.

July 20th, the patient being under an anæsthetic, I made an incision two inches and a half long over the tumour along the anterior edge of the sterno-mastoid, avoiding the external jugular vein, which was nearer the middle line than normal. The mastoid muscle being drawn outwards with retractor hooks, I proceeded to break down the adhesions with the point of the forefinger and handle of the knife, and experienced some difficulty, as the adhesions were tough and fibrous in character. Having broken through some large branches from the superior thyroid artery, there was brisk bleeding till the ends were secured and tied with catgut ligatures. I now succeeded in quite turning out the right lobe, and came to the isthmus, which was considerably enlarged. This I detached from the trachea, getting well over to the left side, and secured it tightly in a catgut ligature before applying the knife. There was now hardly any bleeding, but a large cavity existed at the lower end, extending well down towards the clavicle and the large vessels of the neck externally. A horse-hair drainage-tube was put in and the wound closely united with horsehair sutures; the carbolic spray, 1 in 20, playing on the parts all through, all strict antiseptic precautions (Listerian) being observed during and after the operation.

For twenty-four hours the patient complained of difficulty in deglutition, which was her only trouble. Union throughout took place by first intention, without a drop of pus at any time, the drainage-tube and sutures being removed on the tenth day. Discharged from hospital on August 7th. Upon examining the growth after removal, it was found to be made up of a number of small cysts with thin walls, one larger than the rest at about its middle. Anteriorly it was irregularly conical and prominent, posteriorly flat, and very dark livid in colour; it measured three inches and a quarter in length and seven inches around its largest part.

Manchester-square, W.

REPORT OF THE

FIRST CASE OF OVARIOTOMY IN BARBADOES.

By F. B. ARCHER, M.B., C.M.

MARY B——, aged nineteen years, single, was admitted into the General Hospital, Bridgetown, Barbadoes, on August 11th, 1879. She first noticed a swelling of her abdomen eighteen months ago, more conspicuous on the left side. Had occasionally a little pain, but not much. Catamenia always regular. Has lost flesh, but is fairly nourished.

On the 11th September, at 2 P.M., the patient was put under chloroform and an incision three inches and a half long was made, extending from above the pubes to a little below the umbilicus. A few slight adhesions were now broken down, a trocar inserted, and nineteen pints of fluid drawn off. The cyst (which weighed 4½ lb.) was removed, the pedicle (a small one) was secured with a silk ligature, cut short and returned into the abdomen. The abdominal cavity was carefully sponged out with a solution of carbolic acid, all bleeding arrested, and the wound closed with nine silk sutures. Dry lint was placed over the wound, strapping and a bandage were applied, and the patient returned to her bed in the ward with the other patients. The operation lasted three-quarters of an hour. She vomited once only. In the evening the catheter was passed; she had ice to suck; one-sixth of a grain of morphia injected hypodermically; no vomiting; no pain. Temperature 101·4° F.

Sept. 12th.—Morning: Slept several hours last night. One pint of urine drawn off; one-sixth of a grain of morphia injected; nutrient enema given, and to be repeated every fourth hour. Evening: No pain, no sickness; seems to be getting on well. Temperature 100°.

13th.—Allowed some milk and beef-tea by the mouth to-day; nutrient enemata stopped; passes water naturally. Temperature 101·8°.

14th.—Had a good night. Temperature 99°.

15th.—Wound dressed; very little discharge; going on very well. Temperature normal.

16th.—Six stitches removed to-day; allowed to take soda water and brandy.

17th.—Wound dressed and the remaining stitches removed. Evening: Temperature 101°; pulse 120. She says she feels very well.

18th.—Had a good night; an enema was administered, and the bowels freely opened; allowed chicken for dinner. Temperature 100°.

19th.—Temperature normal; going on well.

From this date her temperature continued normal. On the 28th the wound was healed, and she was allowed to get up. Her bowels only move after enema. She remained in hospital some time longer and rapidly regained her flesh and strength. We had no apparatus for carrying out the antiseptic treatment, or it would have been used. She remained in one of the ordinary wards of the hospital along with the other patients.

This is the first time the operation has ever been performed in this island.

Bridgetown, Barbadoes.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

AN UNUSUAL CASE OF LAMENESS; OPERATION; CURE.

(Under the care of Mr. FREDERICK TREVES.)

THE following somewhat peculiar case came first under observation in January last.

The patient was a perfectly healthy lad, sixteen years of age, well developed, vigorous, and free, so far as could be ascertained, from constitutional defect of any kind. He complained simply of great pain in the left foot when he attempted to walk, and this made him so lame that he had difficulty in walking to and from the house where he was employed, and where his employment, it may be noted, was sedentary. This lameness had existed for exactly a year, and was becoming more troublesome every month. The first occasion on which he noticed the pain in the foot was one evening when pulling off his boot. There was no history of injury of any kind, direct or indirect, nor could the patient account for the defect in any way. On examining him it was found that he walked just as a person would walk who had a tender spot on the inner side of the sole, that is to say, he walked as much as possible on the heel and outer side of the foot, a fact also well demonstrated by the unequal manner in which the sole of the boot had been worn away. On inspecting the foot it appeared perfectly normal. On being asked the seat of pain the patient pointed very precisely to the web between the great and the second toe, and to a spot exactly opposite to the metatarso-phalangeal joint. He spoke of the pain as being extremely severe, and as occasionally running up the front of the leg to the knee. It only came on, he stated, when he attempted to walk, or accidentally or purposely bent the great toe. After he had walked some distance the pain would continue perhaps for one hour, but otherwise when the foot was at rest he was perfectly free from discomfort. The metatarso-phalangeal joint appeared quite normal; there was no heat, no swelling, no tenderness, and not the least pain on interarticular pressure, and no pain on movement except when the great toe was flexed towards the dorsum. Forcible extension towards the sole was painless, as was also any rotatory movement, but when an attempt was made to flex the toe the pain was immediately induced at the spot indicated.

It was obvious so far that the pain produced by any attempt at flexion of the great toe caused the lameness; flexion at the metatarso-phalangeal joint being a necessary movement in the ordinary act of walking. It was possible also to understand that the act of removing the boot would be painful by the flexion of the toe almost necessarily caused in its withdrawal. On again manipulating the parts, it appeared that the base of the first phalanx of the great toe was a little more prominent than usual. The corresponding phalanx on the opposite foot presented exactly the same degree of prominence, and the enlargement seemed to be purely anatomical. The conclusion arrived at was that in the act of flexion the base of the phalanx was for some reason carried against the digital nerve situated in the web, and it was conceived that such a circumstance would account for the character of the pain, and its occasionally following the course of the anterior tibial nerve. It was found, too, that if the tissues of the web were drawn away from the great toe as far as practicable, the toe could then be flexed without pain.

Esmarch's bandage having been applied, an incision was made in the web, and the digital branch of the anterior tibial nerve was fully exposed. It was then found that the flexion towards the dorsum, the base of the first phalanx of the great toe, was carried forcibly against the nerve, but that in the opposite movement of extension the nerve was not touched. The prominence spoken of was obviously only anatomical, and might have been more apparent than real, and produced by some inequality in the joint surfaces. About a quarter of an inch of the nerve, which appeared to be quite normal, was removed, and the wound was closed and dressed with dry lint. It healed without trouble, and the patient then found that he could walk without inconvenience, and that flexion of the toe, however violent, could no longer induce pain. He was seen about a month after he left the hospital, and he was then in every respect perfectly well, and had lost every trace of his lameness.

WESTERN DISPENSARY, EDINBURGH.

CASES FROM THE THROAT DEPARTMENT; REMARKS.

(Under the care of Dr. HUNTER MACKENZIE.)

CASE I. *Case of Syphilitic Ulceration of the Pharynx; dysphagia; rapid improvement under local and constitutional treatment.*—W. D——, aged fifty, married, labourer, applied to Dr. MacBride on the 18th April, 1880, and by him was transferred to Dr. Mackenzie. He complained of difficulty in swallowing, regurgitation of food through the nose, shooting pains in the ears, and general weakness. These had existed for about two months, but had become worse during the last two or three weeks. He acknowledged having had a chancre, followed by a bubo, when about twenty years of age, but never before had sore-throat. Now temperate, but at one time drank freely. Had had various manifestations of tertiary syphilis, and his wife had three miscarriages.

On examination patient was thin and sallow, scalp extensively studded with cicatricial marks, hair sparse and dry. Temperature 98·8°, pulse 82. He had no difficulty in respiration, but there was great dysphagia, and he could only swallow fluids in small quantities. The tongue was furred, but not fissured. The retro-pharyngeal wall was deeply excavated, and covered with a foul slough, the ulceration extending transversely over the whole breadth of the wall, and vertically from the naso-pharynx to the epiglottic line. At the lower part was a peninsula of flabby granulation tissue, running into the sloughy mass, and resembling a new growth. There was an absence of cervical glandular enlargement. On laryngoscopic examination the veins at the base of the tongue were seen enlarged, the free edge of the epiglottis was serrated from old ulceration, and the ventricular bands were swollen, and overlapped the vocal cords to about one-third of their extent. The posterior nares were congested, not ulcerated.

The case was treated locally by free and frequent applications of an alkaline spray to the ulcerated surface, which cleared away quantities of the slough, and prepared the parts for the application of solutions of nitrate of silver, 90—240 grains to one ounce. Internally he was ordered the iodide of potassium, fifteen grains, thrice daily, before food, together with mercurial inunction each evening after the ulceration had ceased to spread. Under this treatment he made rapid improvement, and on May 2nd he reported himself feeling as well as ever, with no difficulty in swallowing even solid food. The headaches and attacks of giddiness from which he formerly suffered had also abated, and the ulcerated surface was quickly healing up. At his own desire he discontinued attendance on May 30th, feeling now extremely well, and having resumed work. He was, however, warned that the disease would most likely recur, the time during which he had been under treatment having been too short to produce a permanent cure.

CASE 2. *Case of Pulmonary Phthisis, with Laryngitis; paresis of, and papillomatous growth on, left vocal cord; improvement under constitutional and local treatment.*—Mrs. M——, aged thirty-six, was sent to Dr. Mackenzie by Dr. Carmichael of Northumberland-street, on March 22nd, 1880. She complained of hoarseness, difficult and noisy respiration, cough, and weakness. Never very strong, but had no hereditary tendency to phthisis. Had a severe attack of acute laryngitis in October, 1879, from which she never wholly recovered. Thenceforth she had been subject to severe sweatings, and had also got thinner. Dr. Lumgair of Largo, by whom she was treated during her acute laryngeal attack, reported that he suspected a syphilitic taint in the constitution of the patient.

On examination patient was thin and nervous; pulse 93, small; temperature 99·8°. There was marked inspiratory

stridor, and the phonation was husky and broken. There was no pain, tenderness on pressure, or swelling in the laryngeal region. On laryngoscopic examination the fauces were pale, not irritable; the left vocal cord was entirely obscured by the swollen ventricular band on the same side, and a small papillomatous growth, evidently attached to the left vocal cord towards the posterior commissure, projected into the glottis. The left arytenoid cartilage and ary-epiglottic fold were swollen, and a similar swelling, but less in degree, existed on the other side. The epiglottis was free from swelling and there was no ulceration. On phonation, the left vocal cord was apparently immobile, and maintained the cadaveric position, whilst the right crossed the median line, so as to make up, as far as possible, for the defective movement of its fellow. There was slight comparative dulness at the right pulmonary apex anteriorly, with bronchial breathing; respiration jerky at left apex.

The treatment of the case was—(1) constitutional, consisting of the administration of one drachm of the syrup of the iodide of iron, with five grains of iodide of potassium, thrice daily (the patient was unable to take cod-liver oil in any form), and (2) local, embracing the occasional application to the larynx of a solution of perchloride of iron, one hundred and twenty grains to an ounce. To these was subsequently added (3) the continuous inhalation of undiluted creasote by means of a respirator specially constructed for the purpose.

Under this treatment the patient made good progress both as regards the general health and the local condition. This was shown by increase in weight, falling of temperature and pulse, and abatement in the amount of inspiratory stridor. On the 15th June the laryngoscopic appearances were far from healthy, but the partial subsidence of the tumefaction, and less prominence of the growth, were an improvement on what formerly existed, and contributed proportionately to the ease and comfort of the patient. The greatest benefit seemed to follow the creasote inhalations.

Remarks by Dr. MACKENZIE.—This case might be classed by some as one of laryngeal phthisis, but I have preferred to describe it as an instance of simple laryngitis on account of the absence of certain of the usual manifestations of phthisis of the larynx. The swelling of the arytenoid cartilages and ary-epiglottic folds, whilst resembling in its contour the pear-shaped tumefaction of phthisis, had not the peculiar ashy-grey opaqueness which characterises the last-named condition. The absence of irritability and pain, and normal condition of the epiglottis, which in the second stage (tumefaction) of laryngeal phthisis generally participates in the swelling, are also in favour of simple laryngitis. The paresis of the left vocal cord seemed to be peripheral and mechanical in character, from the inflammatory swelling interfering with the natural mobility of the parts; at least, no trace of any glandular or other enlargement could be detected in the course of the recurrent laryngeal nerves. In the inflammatory attack we have the origin of the papilloma, which generally arises in this way. The syphilitic taint alluded to in the history of the case was not manifested in the laryngeal affection, although Dr. De Havilland Hall has lately (THE LANCET, 12th June, 1880) recorded a case of syphilitic laryngitis, which yielded readily to treatment, where the appearances resembled those usually met with in laryngeal phthisis, but in which there was no lung affection.

Although the case in its laryngeal manifestations seems at the present time to be of a simple inflammatory nature, it is quite possible that it may eventually develop into phthisis, more especially as the lungs have already commenced to undergo the phthisical process.

GENERAL HOSPITAL, SHANGHAI.

PERITONEAL ADHESIONS IN TROPICAL ABSCESS OF THE LIVER; DEATH; REMARKS.

(Under the care of Dr. EDWARD HENDERSON.)

A Russian sailor was admitted on March 20th last. He was a well-developed man of about thirty years of age, thin, but not emaciated, and very anæmic. He appeared to be dying. His illness, it was stated, had lasted about six weeks; it had been characterised by fever of an uncertain type; latterly he had suffered from pain in the region of the liver, which had gradually increased. Physical examination was necessarily imperfect, but it was ascertained that the tissues of the back, legs, and thighs were dropsical, and that there was fluid in the abdominal cavity. In the right nipple line there was nearly absolute dulness from the fourth rib downwards to a point three inches below the ribs—about eight inches in all. On the right side and in front over the liver the intercostal spaces were on a level with the ribs, and there was diffuse tenderness over this area. The urine was examined and found free from albumen. A mixture containing tincture of digitalis and compound spirit of ether was given, along with such suitable nourishment as the patient could take. On the following day he had rallied somewhat, and lay on his right side. The pulse could be felt at the wrist. The heart sounds were very feeble, but appeared to be normal; the apex beat could not be felt. No lengthened examination was at any time possible, but the diagnosis was in favour of hepatic abscess. On the 23rd it was deemed useless to delay operative interference longer, and it was decided to open the abscess by antiseptic incision, if the aspirator confirmed the diagnosis. Before deciding absolutely in favour of this method of operating, search was made for friction-sounds indicating peritonitis, and the probable presence of adhesions. Coarse friction was distinctly heard at one point below the margin of the ribs. Ether was administered, but after a few inhalations, insufficient to produce anæsthesia, the patient stopped breathing, and his pupils dilated widely. Artificial respiration was tried, and the tongue drawn forward, with the effect of again restoring the respiratory movements and a naturally-contracted pupil. This improvement was, however, of short duration, and the patient died. Immediately after death the large needle of Mathieu's aspirator was introduced below the ribs in the right nipple line, and, at a depth of about an inch, pus flowed into the receiver. The needle was then withdrawn. The body was examined on the following day.

On opening the abdomen pus was found lying on the surface of the right lobe of the liver in the meshes of a few adhesions, which were easily swept away by the finger. The puncture made after death came at once into view, pus issuing from it in a small continuous stream. At the back, below the coronary ligament and in a line with it, there were other adhesions, but these also were slight, and apparently recent. There were no other abnormal adhesions between the liver and its surroundings. The right lobe of the liver was the seat of an abscess as large as a man's head. Above and in front the walls of this abscess were formed only by a layer of fibrous tissue and the capsule; below there were about two inches of the secreting structure of the gland left. Clear serous fluid was found in considerable quantity in the cavities of the peritoneum, pleuræ, and pericardium.

Remarks by Dr. HENDERSON.—With so large an abscess, and so near an approach of pus to the surface, considerable and firm peritoneal adhesions might reasonably have been expected; their absence is a point worth noting, especially at a time when free antiseptic incision seems likely to become the recognised mode of dealing with the disease. The formation of adhesions is diagnosed by the occurrence of acute localised pain, and by the friction-sounds which at one time or other can be heard over the painful area. The immobility of the liver during the respiratory movements suggests itself as a further test, but I have myself had no practical experience of its usefulness. In the case just given the history of acute pain was absent, and friction was but once heard. In doubtful cases, when it is proposed to open the abscess below the ribs, it would be well to expose the surface of the liver by an incision sufficiently large to admit the finger; through such an opening the presence or absence of sufficient adhesions might be determined, and the subsequent steps of the operation arranged accordingly.

Such cases as the one under discussion are of course now rarely met with, but I have preserved the notes of a nearly parallel example which I saw at Shanghai in the autumn of 1869. At that time it was thought right by many practitioners to wait before opening an abscess in the liver until distinct bulging with œdema of the subcutaneous tissue indicated the near approach of the matter to the surface of the body. Some cases were, I believe, lost in this way, which, under more active treatment, might have been saved; but it cannot be denied that at that time the results of anything like early interference were most discouraging. The case to which I specially refer now was under observation in Shanghai for twenty-eight days, during which

time two proposals to open the abscess with a trocar were negatived in consultation. The patient died before the abscess showed any sign of pointing; and at the post-mortem examination, although an enormous abscess was found occupying the right lobe of the liver, and closely approaching the surface of the gland over a wide area, yet only a few inconsiderable and apparently recent adhesions were seen in the right infra-axillary region. I can well remember how triumphantly this was recognised as a prooof of the folly of surgical interference in such a case.

In January of 1875 I saw a case in consultation which further illustrates the point. I regarded it as peculiarly favourable for operation. The patient, a young male adult, had been ill for ten days, during which time he had suffered considerably from pain in the region of the liver. When I visited him he was in bed resting on his right elbow, in a half prone position, to "ease the pain" he said. His general health had not then suffered seriously. The liver dulness was considerably increased, and the intercostal depressions were nearly obliterated on the right side, and in front below the fifth rib. There was a rounded prominence in the epigastrium, in which obscure fluctuation could be felt; this tumour was absolutely dull to percussion, and its dulness was continuous with that of the liver. The stethoscope was not used. The No. 2 needle of a Dieulafoy's aspirator, dipped in carbolic acid, was introduced into the centre of the swelling, and about two ounces of pus were drawn off. Two more operations at which I was present were done in the same way, as nearly as possible in the same place, and with much the same result. Ten days after the first operation the patient died rather suddenly, the abscess having burst into the peritoneal cavity. I witnessed the post-mortem examination. The abscess had given way posteriorly. There were no adhesions in front where the aspirator had been used, and the needle punctures were apparently closed.

At a post-mortem examination made in the Shanghai General Hospital in July, 1874, I saw a liver removed from the body of a male adult which contained, in a large cavity centrally situated, nearly three pounds of pus. In this case there was a complete absence of adhesions. During the four days the patient was in the hospital he complained of no pain or tenderness in the region of the liver; he was then, of course, dying, but was quite sensible and able to answer questions.

Even when the aspirator is alone used there is risk, unless the surface of the liver is sufficiently adherent to the parietes. An acute abscess of the liver cannot be emptied through the small needles supplied with aspirators, the fine channels of these being invariably blocked by the shreds of necrosed tissue to which the pus from such an abscess always contains. On the other hand, the large needles, through which alone evacuation can be effected, leave a wound by which the pus may easily find its way into the peritoneal cavity if the surface of the liver is still free. In the autumn of 1877 a death occurred in my own practice apparently in this way. My patient, a female, had dysentery. My first visit was paid on Oct. 8th. On the 14th a liver abscess was diagnosed, and she had acute pain and much tenderness in the liver area. On the 19th I punctured the abscess in the right hypochondrium, immediately below the ribs, with the large needle of a Dieulafoy's aspirator, repeating the operation on the 22nd. The presence of sufficient adhesions was inferred in this case from the character and duration of the pain, but the stethoscope was not used. She died on the 27th from general peritonitis. At the post-mortem pus was found lying between the abdominal parietes and the surface of the liver, in communication with the pus in the abscess. There were many recent adhesions between the liver and the surrounding parts. A little longer delay in operating in this case might have secured a favourable result.

It must not be supposed from the foregoing that I would for a moment council any return to the expectant treatment of hepatic abscess, the fatal results of what I have too often witnessed in former years. I am now only anxious to point out the necessity there is for care in operating, and to show how much may depend on the careful and intelligent observation of a case from day to day during its whole progress.

THE new HERTS CONVALESCENT HOME will be opened at St. Leonards on October 21st by the Princess Christian. About £1500 is still needed to meet the cost of the new building.

Reviews and Notices of Books.

The Riviera. By EDWARD I. SPARKS, M.A., B.M. Oxon. London: J. & A. Churchill. 1879.

IT is a fashion, and undoubtedly a good fashion, of the present day to send patients suffering from consumption and other constitutional chronic maladies to climates which may enable them to throw off their ailments. To wrongly advise a patient in such a matter means very often the more emptying of his pocket for the benefit of the hotel-keeper and the undertaker; while sound advice, advice based upon real knowledge, will often prolong the existence of lives which are of inestimable value. The climate which will do harm or good is often extremely localised. The sending of a patient to the wrong town of a district, to the wrong part of a town which may have been judiciously selected, to a wrong hotel, or even to a wrong room in a well-selected hotel, may cause the best laid schemes and the kindliest intentions to work mischief rather than benefit. In arriving at conclusions on such matters we must trust entirely to the information of those who live on the spot, and it is admitted that disinterested observers who are actuated by a purely scientific spirit are few and far between. On this account Dr. Sparks' book will be very welcome to the profession at large, for every chapter of it shows that it is the work of a man of learning and science.

The first chapter, on the meteorology of the Riviera, furnishes many important facts. The mean difference of temperature between sunshine and shade, during the winter months, is 73° F., and thus the risk of chill in passing from sunshine (averaging 129° F.) to shade (averaging 56° F.) is always very great. The mean winter temperature of the district appears to be from eight to ten degrees higher than that of London, the difference being least in the months of December and February. On the shortest day of the year (Dec. 21st) the sun is above the horizon in the Riviera for 8 hours 43½ minutes, as against 7 hours 40 minutes in England, and all through the winter months the Riviera day is slightly the longer. The main cause of the difference in temperature of different parts of the Riviera is the varying amount of protection afforded by the range of the Maritime Alps. Where the mountains approach the coast the snow-chilled winds from the Alps blow more or less completely over the towns nestling at the mountain-base. This is the case at the western end of the Riviera. Where, however, as at Genoa, plains intervene between the snow peaks and the town, the cold current from the north blows without let or hindrance. At Genoa the annual rainfall is 1317 mm., and there are sixty-seven rainy days during the winter months, while at Hyères, at the extreme west of the Riviera, the rainfall is only 746 mm., and the number of rainy days in winter only thirty-seven and a half. The temperature of the sea along the Riviera is about 12° F. higher than the minimum temperature of the air. The mean winter temperature of the sea at Cannes is 57·2° F., as against 49·8° F. along the Cornish coast, and about 42° F. along the east coast of England. There is no doubt that the high temperature of the sea is one cause of the mildness of the Riviera climate. The amount of rainfall during the winter at Nice is much greater than in London, but the number of rainy days is very much less; while the number of cloudless days is about ninety-six at Nice, scattered equally throughout the winter months, to twelve in London, of which two occur in November, none in December, one in January, another in February, two in March, and the remaining six in April. The mean humidity of the air (saturation being 100) varies between 70 and 74 on the Riviera and between 83 (March) and 90 (January) in London. The rainfall in the Riviera is subtropical in character,

violent while it lasts, but rarely continuous for many days together. The visitors to the Riviera are constantly in dread of the north-west wind, the *mistral*, which has parted with its moisture in sweeping over Central France. Its advent is always accompanied by a fall of the barometer. "The mistral is more felt the further west you go, though it is by no means unknown as far east as San Remo." The south-east wind, the *scirocco*, is the wind that brings the rain. The north-east wind, or *greco*, is bitterly cold; this is the wind which makes the climate of Genoa so trying, and it blew there for part of the day on 309 days in the year 1872. The north wind, or *tramontana*, blows over those places which are immediately protected by high mountains, but it finds access to places situated at the extremities of long straight valleys like Vintimiglia. The sea-breeze is felt along the Riviera during the middle of the day, but at sunset the land-breeze immediately sets in. The sudden cold which occurs at sunset is well known, and might have been inferred from what has been said regarding the difference in temperature between sunshine and shade. Dr. Marcet's experiment upon one occasion showed that between 4.5 P.M. and 4.27 P.M., the time of sunset, the fall in the thermometer was 9° F.; at 4.40 it had risen again nearly one degree, and fell ten more degrees before midnight. Fog and mist are unknown along the Riviera, snow is a great rarity, and prolonged frost never occurs; 25·7° F. was the lowest temperature observed in Nice for twenty years. In forming an estimate of the climate of the Riviera, it seems to us to be very necessary to guard against the utterances of occasional visitors, who only pay short visits. While one fortunate visitor may tell with rapture of a Christmas like an English summer, open-air excursions, picnics, warmth and sunshine, another, less fortunate, may tell of everlasting mistral "iced winds" from the north, and other discomforts. It is well not to listen either to the optimist or pessimist. A reference to Dr. Sparks' book will tell exactly what the climate is. A man of sense will not expect to find a climate without some drawbacks, and will be thankful to know that, should he encounter bad weather in the Riviera, he has probably left something infinitely worse in London.

Chapter II., devoted to the trees of the Riviera, will prove of great interest to those who have to find amusement during an enforced sojourn in the district; it is full of information. Chapter III. treats of the medical aspect of the Riviera; and Chapter IV. is devoted to a consideration of the journey. The remaining chapters treat in more detail of the various health-resorts along the Riviera, and in them will be found much indispensable information concerning Hyères, Cannes, Nice, Mentone, Bordighera, San Remo, Alassio, Pegli, Cornigliano, Nervi, Rapallo, and Spezia. These chapters show, among other things, how worthless are the utterances of interested persons as regards climate, and how easily an "authority" with local bias may blind himself to the shortcomings of the spot which he has selected as his professional habitat. To judge of a health-resort one must know it personally, unless able to refer to an honest book like that which Dr. Sparks has written. In the next edition we hope to see introduced a good map of the district and plans of the various towns. This would increase the value of the work immensely. As it is, we can most cordially recommend the work to our readers as one of exceptional worth.

On Deafness, Giddiness, and Noises in the Head. By EDWARD WOAKES, M.D. Lond., Senior Surgeon, and Surgeon to the Ear Department, at the Hospital for Diseases of the Throat and Chest. Second Edition. London: H. K. Lewis. 1880.

THE early demand for a fresh edition of Dr. Woakes' little volume is a sufficient criticism of its merits. Barely an interval of eighteen months has elapsed since the publication of the first edition. This circumstance becomes the more significant when considered in conjunction with the fact that the work is rather a dissertation on some speculative points in aural pathology than a manual on diseases of the ear. In the preface to the first edition the author described his point of departure, and in the prefnce to the second edition he states that he has attempted to extend still farther the lines on which he originally started. From considering the association of neuralgia with herpes, and the analogous phenomena attending wounds of nerves, Dr. Woakes was led to observe the nutritive correlation of regions and parts, otherwise unconnected, through the intermedium of vaso-motor innervation. In consequence of this relation any departure in any one region from its ordinary state is immediately appreciated by a corresponding set of nutritive changes in the other. The explanation of this mutual interdependence between the respective regions is, he thinks, to be found in the association of their afferent and efferent nerves with a given sympathetic ganglion, and in this way certain physiological and pathological processes in the ear, as well as tinnitus and vertigo, are investigated and explained.

The method which Dr. Woakes has followed in attempting to elucidate some of the more intricate problems in aural pathology has enabled him to lift the subject out of the low depths of narrow, and too often ignorant, specialism to the higher platform of scientific inquiry. Though Dr. Woakes' inferences may not all be equally conclusive they are always ingenious, and extremely plausible. His explanation of the association of inflammation of the inner and middle parts of the ear with dentitional derangements in infants is at once sensible and suggestive. The amount of preventable deafness due to neglected or despised inflammations during infancy and childhood is a sad reflection on medical practice. It would be no exaggeration to say that, of all cases of deafness, at least 70 per cent. are due to purely preventable or curable causes. The following is a good illustration of the way in which severe inflammation of the ear is often overlooked. An infant that is teething shows evident signs of acute suffering in its troubled face; it cries or shrieks piteously whenever its position is changed, especially if this be done suddenly, and it constantly raises its hand to its head. "Now, the point which I wish to emphasise is this," says Dr. Woakes. "The pain thus experienced is not what we vaguely call neuralgia; it is a definite trophic change, an inflammation taking place in the deeper-seated tissues of the ear, beginning with congestion and stretching of an acutely sensitive region, passing on to exudation and suppuration, capable of being recognised if the proper means are used for doing this." Often, however, the case is not seen till late, and the child either dies from an extension of the inflammatory processes to the brain or its membranes; or a sudden subsidence of the acute symptoms takes place, accompanied by a discharge from the ear. No more is thought of the affair, except, perhaps, to congratulate the parents on the existence of such a "useful derivative" as a copious discharge from the ear, which it would be folly to attempt to arrest. Meanwhile, the middle ear of the patient is undergoing suppurative inflammation; its delicate textures are breaking down, and soon irreparable mischief will be accomplished. This, we can affirm with the author, is no fancy portrait, but has occurred thousands of times, is occurring almost daily, and will continue to occur unless means be taken to recognise the true nature of the symptoms, and to treat them appropriately.

We cannot dwell on Dr. Woakes' explanation of deafness in adults arising from paresis of the palato-tubal muscles, nor on his ingenious speculations on ear-cough, ear-sneezing, vertigo, and noises in the head. No brief summary of his views could do full justice to the cogency and subtlety of his reasons. We prefer to commend the whole work to the thoughtful perusal of all intelligent medical practitioners who desire to rise above the level of mere routine empiricism.

THE LANCET.

LONDON: SATURDAY, AUGUST 28, 1880.

THE current number (August) of the *Contemporary Review* contains, among much interesting matter, a suggestive article, by Dr. KARL HILLEBRAND, on "Half Culture in Germany," in which "even Englishmen may find something to interest them." Our object in referring to this article is not so much to call attention to the state of education either in Germany or in England, as to give what emphasis we can to some of the principles which Dr. HILLEBRAND indicates. These principles are both logical and rational, and are, we believe, the only ones on which the methods of true education should be based. Of late years there has been a growing tendency to eliminate from general preliminary education everything that is not likely to be directly useful in a boy's subsequent career. The classical languages are the especial bugbear of so-called educational reformers, and it is proposed that natural science should be put into their place. The dictum is constantly dinned into our ears that chemistry, physics, botany, and biology are the well-springs of all intellectual and moral vigour, and examinations the final test of capability. Mnemonical accumulation of facts is the modern equivalent of culture, and stringency of examination is regarded as the measure of attainments.

It is gratifying to find an authority of Dr. HILLEBRAND's pretension taking a decided stand against these modern views. "Culture," he says, "does not mean a vast quantity of knowledge—on the contrary, it demands a wise restriction." There will, he goes on to state, always be some matters which we must ignore in order to be able to live at all, such as dirt in the physical, misery in the emotional, and technical knowledge in the intellectual world. As the cleanest of the clean must eat his bread and drink his wine without inquiring too curiously how they were made and who has handled them, and as the most compassionate person can hardly expect to protect the whole animal kingdom from suffering and persecution, so even the most learned among the learned will scarcely be so ambitious as to wish to master every branch of science. "In life itself," says Dr. HILLEBRAND, "we are obliged to restrict ourselves to what lies nearest to us, and the true purpose of the school is not to anticipate the lessons of life, but so to discipline the mind that it may be prepared to learn them from experience. Far too much is taught—nay, too much is read." This is, we fear, precisely the condition which is the bane alike of preliminary and professional education: "too much is taught—nay, too much is read." Anyone looking over the prospectuses of the various medical schools for the first time would be appalled by the number and complexity of subjects comprised within the medical student's curriculum. It requires actual experience to prove how chimerical all this outward show is, how valueless, how false! There is in it nothing of training, and certainly nothing approaching to culture. Observation of facts merely as such is glorified to the exclusion of all exercise of reasoning, reflection, and judgment. The larger the number of facts that can be crowded into the student's gaze, the greater is the educational value supposed to be. But this is true only within very narrow and circumscribed limits. There soon arrives a stage at which numbers become confusing, and observation meaningless routine. Intellectual knowledge is individual and subjective—that is to say, unteachable. Experience alone can teach what life contains, and the schools can but train the organs which grasp that experience.

As to the relative merits of liberal education and professional education, Dr. HILLEBRAND maintains that when once a sound general education has been given, special knowledge is easily acquired in the technical schools. No early professional training can supply the place of a liberal education. He condemns as "false the opinion that the time is lost which is spent in learning things that do not bring any immediate profit," and maintains that it is much more advantageous to enter life with a completely formed and disciplined mind—that is, with a perfect instrument—than with a quantity of special knowledge.

Dr. HILLEBRAND's opinion of the relative value of the modern languages and a thorough study of mechanics and the natural sciences on the one hand, and the classical languages and mathematics on the other, as a means of general education, is very decidedly in favour of the latter. "Whoever considers," he says, "the matter, even superficially, will come to the *à priori* conviction that language, which is at once thought and the form of thought, while at the same time it is the symbol of all feelings, sensations, and things, must be a more important means of mental discipline than any other manifestation of the human mind, if only because it is the most general and comprehensive of all; that which embraces most of what goes on within us, which brings most clearly to our consciousness what happens around, which conveys most distinctly the communications between man and man." But the educational value of ancient languages does not lie merely in the literature to which they are the key; it is essentially formal. "Thus, Latin grammar is a course of logic presented in an almost tangible form. Greek, on the other hand, I might," he adds, "almost call a course of æsthetics, by means of which we learn to distinguish a thousand gradations of meaning which our barbarous languages will not allow us to accentuate." In short, Dr. HILLEBRAND sees in classical study not only the most effectual corrective to the atomical tendencies of our age, "which threaten, unless resisted, to reduce us to the condition of disconnected grains of sand"; but also the most admirable of mental gymnastics, "which, when applied by even the dullest and most awkward mind, renders it bright, pliant, and strong—the school of logical thought, of intuitive perception, and of just judgment." If this estimate be true, it must be allowed that the legislation and regulations for the preliminary and professional education of medical students have for a long time been in an entirely wrong direction. Those who have the charge of the preliminary training of intending medical students will do well to consider whether a liberal education such as

Dr. HILLEBRAND recommends will not also be the best equipment for a medical man.

THE mode of formation of callus is a subject of both practical and pathological interest. In the year 1865 M. RANVIER showed that the callus which is formed in simple fractures, in men and animals alike, passes through a cartilaginous stage, while in compound fractures there is no cartilaginous stage; new bone is at once formed from granulations which come from the medulla of the fractured bone. He showed also that suppurative inflammation does not interfere with the formation of bone in cartilaginous callus, when the latter has once been formed. These researches left still undecided the question of the cause of the difference in the process under the two conditions. This point has been further studied in an investigation described to the Académie des Sciences by two pupils of M. RANVIER, MM. RIGAL and VIGNAL. They find that (1) even in simple fractures the central plug always becomes directly bony in the middle of the medulla, which has assumed an embryonal structure. (2) When a part of the bone is scraped away, either down to the medullary canal or less deeply, the cicatrix is always directly bony, even when union is by the first intention, a fact also observed by M. RANVIER. (3) In a compound fracture, even if the fragments of bone are left exposed to the air for a considerable time, if suppurative inflammation can be avoided, and union by the first intention thus obtained, the callus passes through a cartilaginous stage. (4) That in a compound and suppurating fracture the callus is at first cartilaginous in the points not invaded by the suppuration, while even in simple fractures, in which the extremities of the bones are, from any cause, bathed in pus, the callus is still primarily bony. These different facts led the investigators to conclude that if in compound fractures the callus is primarily bony, it is because the periosteum, or more exactly the subperiosteal layer of cellular tissue, was destroyed by the suppuration; and they have arrived at the conclusion that this layer alone is concerned in the formation of cartilage, and that the medulla of both the Haversian canals and of the central canal forms bone directly. Several attempts were made to obtain bony tissue from medulla transplanted into the subcutaneous cellular tissue, but all failed, while subperiosteal tissue thus transplanted invariably produced bone which was at first cartilaginous, as M. OLLIER had already found. From the lower third of the tibia of a rabbit the periosteum was removed three or four times, so as to destroy all its osteogenic properties. Then, fifteen days after the last removal, the bone was broken in the middle of the denuded portion. Twelve days later, a period at which, in the rabbit, a cartilaginous callus is usually found, the animal was killed, and the examination of the fracture showed that in the midst of granulations proceeding from enlarged Haversian canals, there was a peripheral callus, purely bony. The experiment was repeated several times with the same result. A still more conclusive experiment was the one in which the periosteum was removed from one surface only, and the bone then broken. Upon that surface the osseous callus formed directly, as in the case of compound fractures, while upon the surface on which the periosteum was preserved the callus was cartilaginous. These experiments show that the subperiosteal layer, when there is active irritation, as in the case of fractures, contributes to reparation by forming cartilage. But there are numerous cases in which the subperiosteal tissue forms bone directly, and experimentally it could be made to form bone or cartilage at will; with slight irritation bone is formed, with greater irritation cartilage. In the same animal the periosteum was exposed on both legs; on one it was irritated gently by rubbing (as with an agate burnisher), and in the other leg it was irritated strongly, and the adjacent soft parts were bruised, so as to cause an extravasation. If union of the wounds by first intention was obtained, in the former osteophytes were found beneath the periosteum on the twelfth day, while in the latter there were only cartilaginous masses. The latter experiment explains the direct formation of bone at the points of the callus which are farthest from the fracture. In the experimental fractures it was invariably found that in the extremities of the oval mass of callus, bone was formed at once—the inflammation at these points being less active, the subperiosteal cellular layer formed bone immediately.

IN another column we print a letter from Dr. ROBERT BARNES, directing attention to certain practical aspects of the Guy's case which are in danger of being overlooked. The excuse pleaded by the nurse when before the Treasurer, as recited by Dr. PAVY in his letter of last week—namely, "that she had been given to understand that the patient was suffering from hysteria, and that she thought she was only putting in force the proper treatment,"—rests on three assumptions: "(1) That hysteria is a disorder rather moral than physical; (2) that, therefore, hysteria may properly be treated on penal principles; (3rd) that a nurse is competent, of her own motion, to apply that treatment." These are, as Dr. BARNES points out, very grave propositions. The first is simply absurd; the second mischievous; the third destructive of the first and last principles of medical practice.

It would be difficult to expose the misconception as to "hysteria" which seems to prevail in certain—even professional—circles more tersely or clearly than Dr. BARNES has exposed it. "Wherever the phenomena known as hysteria present themselves, there is surely underlying them as cause a pathological condition which it is the business of the physician to discover and to treat. To treat hysteria medically is to treat a symptom—a course sometimes judicious, but hardly scientific. To treat hysteria penally is, in plain language, to treat the patient brutally. Hysteria is no more an independent disease than is neuralgia, chorea, epilepsy, or other covert manifestation of disease or disorder of the nerve-centres. As well might we apply penal treatment to these nervous phenomena as to hysteria. The penal treatment of hysteria is a remnant of the barbarous era of medicine, when lunatics were so treated." This is a simple and forcible statement of facts. Cases of "hysteria," "neuralgia," "epilepsy," and the like, are on a footing with cases of ill-temper or passion, pain, fidgets, formulated or organised nerve-disturbance. They are not diseases, but *states;* and the troubles to which for convenience Art gives a name are known to Science only as the symptoms or expressions of a pathological condition which it is the duty of the physician to explore We shall never be wholly

rid of the perils and contingencies of treatment for these pseudo-diseases until the practice of considering and describing effects as causes is abandoned.

Meanwhile it is necessary to observe that the line of reasoning adopted is not wholly faultless. The syllogism of the defence, as Dr. BARNES would hypothecate it, stands thus: Moral diseases require moral treatment (which is true in itself). 2. Hysteria is a moral disease (which is false, because hysteria is not a disease, and if it were it would not be moral). 3. Therefore hysteria requires moral treatment. The first proposition is accurate in the abstract, but its application is very limited because it is difficult to name more than one or two diseases which are even *supposed* to be moral. "Moral insanity" is the chief of these, and the tendency of scientific inquiry points to the conclusion that before many years this term will be eliminated from the nosology of mental disease. Every step onwards makes it increasingly evident that even the more purely mental phenomena are the expressions of a force acting exclusively through, and limited by, if not arising within, the physical area. Even though it be possible, as it clearly is, to operate upon the brain as an organ through the mental faculties which are its functions, and so to re-educate it, or improve its development reflexly, the fundamental principle of this method of treatment lies in the recognition that the phenomena of disorderly brain and nerve action are not diseases, although they proceed from pathological conditions. This much must be conceded. It is, however, necessary to point out that although the symptoms of a pathological condition do not constitute a disease, it may be necessary to treat the disease through the "symptoms," that being the only way to approach it. An illustration of this method is that to which we have alluded, the development of the brain by re-education. It would not, therefore, go without saying that because hysteria is not a moral disease—or a disease at all—it could not require moral treatment! The treatment of "symptoms" is sometimes the only possible mode of treatment, and in respect to *all* developmental diseases where the morbid condition is chiefly one of function, a large part of the treatment must be functional. The treatment of an atrophied and paralysed muscle is by exercise—that is function—and in so far as conduct is the outcome of brain action, conduct must be made the medium of brain treatment on the same principle that a muscle is first moved passively, and then stimulated by electricity to promote its nutrition and restore its normal state. We do not allude to this imperfection in the argument with a view to weaken it, but the rather to clear the line of reasoning of a possible obstruction.

It is plainly wrong to class hysteria as a disease, and there is not a particle of evidence which could even be pressed into service as an excuse for regarding it as a moral affection. To treat it penally is, as Dr. BARNES justly insists, "to treat the patient brutally." If it were otherwise, as the law at present stands, the moral treatment required would be out of place in an hospital. The use of the bath as a punitive measure has been long interdicted in the practice of establishments for the insane; it would be strange indeed if it were revived in hospitals. The main point, however, is the system and principle of *treatment by nurses or sisters*. This is a most serious evil, and one which cannot be too strongly denounced. Nothing should be left to a nurse, whether it be the use of a bath at discretion, or the exercise of judgment as to the expediency of getting a patient out of bed. The physician's directions ought to be precise, and it is by failing to give definite instructions, and leaving details to nurses, that the growth of nursing into a separate system has been encouraged. A strong and clear bearing at the outset would have prevented the rise of this hydra-headed evil. Nothing can explain the omission to make every detail of hospital management a part of "treatment," except the neglect to recognise the fact that a hospital is something more than a home where sick persons happen to live, and in truth a medical establishment for the cure of disease; or the existence of a trouble-saving policy which seeks relief from the pressure of hospital work in leaving as much as possible to the nurses. Obviously no physician or surgeon can entertain the opinion that nursing ought to be something apart from, and independent of, the practice of the medical and surgical art. If any such notion prevail, let those who look on it with tolerance take warning from what has occurred in connexion with the asylums for the insane, where the relegation of moral and physical patients to attendants has led to the springing up of a class of officials who are more troublesome to manage than the patients, and who, when they are appointed by a house steward—the homologue of the hospital treasurer—are simply scorpions to the peace, and ceaseless enemies to the success, of asylum practitioners in lunacy. Regrets are vain. The up-starting of pretentious sisterhoods and pseudo-professional nurses has been permitted, if not encouraged. It only remains to exorcise the evil spirit which has been invoked. The sick poor are the sufferers by the new nursing system. Whatever inconvenience hospital physicians and surgeons may suffer must be patiently endured until it can be remedied. It is the penalty of the blunder which has been committed in dealing with the system of which it is the fruit. Meanwhile, in the interests alike of science and humanity, the assistance of the medical faculties of hospitals everywhere must be invoked to put an end to the nuisance and mischief of corps of nursing sisters and the "professed" who do not fulfil the qualification of being simply intelligent women content and modest enough to do what they are bid to do, in the way and at the time specified.

Annotations.

"Ne quid nimis."

CENSUS ENUMERATION IN THE UNITED STATES.

ALL interested in the science of vital statistics must be somewhat amused, if not incited to serious consideration by the local squabbling which is taking place in the United States with regard to the announced results of the Census enumeration now in progress. It is well known that there is much emulation among American municipalities as to the size of their respective cities, judged by the number of their population. It has, moreover, long been the conviction of most students of vital statistics that American mortality statistics are for the most part untrustworthy, not only from the defective system of death-registration which prevails in the United States, but also from the loose, not to say reckless, manner in which the population of its principal cities is estimated during the inter-census

periods. Let us take the city of St. Louis as an example. It has recently been semi-officially announced that the population of that city, at the Census just taken, does not exceed 375,000 persons, and that it may not exceed 350,000, when, as a local newspaper indignantly protests, "everybody knows that the population reaches or exceeds 500,000." The feeling which prompts this indignation is partially disclosed by what follows:—"How preposterous the official estimate of St. Louis is is shown from the allowance of 475,000 to Chicago." We have before alluded in these columns to the incredible mortality statistics issued by the Health Department of the City of St. Louis, and attributed their fallacy mainly to an over-estimate of the population. We have before us the Condensed Statement of the mortality in that city during the year 1879. With regard to the population it is therein stated that it was 160,773 at the Census in 1860, and that according to the Government Census in 1870 it had increased to 310,864, "notwithstanding the depressing influences of the War." It is further intimated that by a recent enumeration in 1878 the population in 1879 was estimated at 503,000. The mortality statistics are calculated upon a round estimate of half a million; the result of which is that the 6167 deaths reported during the year give a rate of mortality equal to 12·33 per 1000. It is scarcely necessary to say that out of America no such low annual death-rate as 12 per 1000, in a large city, is ever heard of; and vital statisticians may be excused if they doubt the trustworthiness of such a death-rate. The death-rate in St. Louis during 1879 is, moreover, reported to show an increase upon a still lower rate in 1878. The continuance of so low a death-rate as 12 per 1000 in a stationary or life-table population would signify a mean duration of life of 83 years, while in England and Wales it does not exceed 40 years. We are able to calculate from the ages of the decedents in St. Louis, in 1879, that the mean age at death during that year was not quite 25½ years, and in no way approached the implied fourscore years. Making due allowance for the fact that the population of St. Louis, instead of being stationary, is a rapidly increasing one, it may pretty safely be estimated that the true death-rate of St. Louis is nearer 30 per 1000 than 12 per 1000. Convinced that the reported death-rate of 12 per 1000 is entirely fallacious, it is, even now that the new census numbers are beginning to be announced, exceedingly difficult to know how much this fallacy is due to an incomplete record of deaths, and how much to exaggerated estimates of the present population. It is said that the action of the Census Bureau is being severely criticised, on account of supposed serious imperfections in its enumeration. If, however, we may take the St. Louis case as a fair sample of the others, we have little hesitation in pronouncing the census number of from 350,000 to 375,000 far more worthy of trust than the 503,000 locally estimated from an enumeration in 1878. It may be hoped that the fallacy of so large a proportion of American mortality statistics, which will become the more patent when the new census figures are published, will direct renewed attention to the subject in the United States.

ADULTERATED BUTTERINE.

IN England we maintain the pleasing fiction that butter alone is allowed to be sold for food; but in France trade in imitation butter is openly carried on. M. Mège-Mouriès is the author of a system for the manufacture of an economical fatty substance which is euphoniously termed "margarine butter." According to the original process the margarine, which may be found in most fatty substances, was extracted from fresh beef suet. When brought in contact with water containing a small quantity of carbonate of soda, and raised to a temperature of 40° C., the grease was liquefied and separated from all foreign bodies. It was then put under hydraulic pressure in canvas sacking, which retained the stearine, while the oleine and the margarine were collected in the cylinders, and constituted a homogeneous paste, well suited to culinary purposes. This special description of butterine was sold in commerce as margarine, and when mixed with a little milk was known as margarine butter. For several years this substance found general favour. Families with restricted means and the small restaurant keepers found it a useful substitute for the butter they could ill afford to purchase; and had the matter rested there, no great complaint need have been made. The manufacturers thought, however, that this comparatively wholesome substance did not yield the large profits they desired. The precautions prescribed in the original process were neglected, the grease employed was derived from every source, and the result was anything but safe to the consumer. Ignoring this deterioration, it was recently suggested that margarine should be used instead of butter in the lunatic asylums of the department of the Seine; and the Ministry of the Interior consequently inquired officially from the Academy of Medicine whether it would be expedient to adopt this proposal. The question was submitted to M. Riche, of the Ecole de Pharmacie, and after various investigations this gentleman has replied that: "The primitive margarine has ceased to exist in commerce, and the margarine actually sold is an industrial product which lends itself readily to the practice of various frauds." Tallow from all sources, and at various stages of staleness, is freely used. Excessive pressure and the highest temperatures are employed in the process of manufacture, the better to disguise the abominable character of the fats; and so divergent are the means of production that it is impossible to establish or maintain any standard of quality. There is great danger that this latter-day margarine may be easily sold in consequence of the good reputation of the original margarine, though we have it on the high authority of M. Riche and the Academy of Medicine that the real substance has ceased to exist. It is to be feared also that the decisions and the labours of the Academy are not well enough known by the public at large to arrest the sale of spurious margarine. False butter is bad enough, but the adulteration of the already spurious article is a superlative degree of falsification which is not often taken into consideration, though but too often practised.

A MANUAL OF HYGIENE FOR INDIA.—PRIZE OF £100.

THE Government of India have offered a prize of £100 for the best Manual of Hygiene for the use of the British soldier in India. The work must be in clear and simple English, without theories, and thoroughly practical, showing the ordinary causes affecting health, the special dangers to health to which British soldiers are exposed in India, and more particularly during their first years in the country, and the best means by which these dangers may be averted. The work will, if accepted, be printed at the public expense, and become the property of the State. It must not cover more than fifty or sixty pages of print of small size. Competitors must send their manuscript addressed to the Secretary to the Government of India in the Military Department, Calcutta, so as to arrive there not later than the 31st March, 1881. The prize will be adjudicated by a committee, consisting of the Surgeon-General of Her Majesty's British Forces in India, the Sanitary Commissioner with the Government of India, and an officer of the Quartermaster-General's Department, to be appointed by His Excellency the Commander-in-Chief. The Government of India will not award the prize unless a manual is produced in all respects suitable for the purpose for which it is required.

Would it not have been well before this prize was offered

that the "Government of India" should have endeavoured to understand what a "theory" is, and particularly the distinction between a "theory" and a "hypothesis"? We can understand that the manual should be free from "hypotheses;" but how it is to be "without theories," if it is to be written in ordinary language, passes our comprehension. Moreover, what possible "manual" of hygiene can be written which will admit of being understood, and worth the paper it will be written upon, that is to be limited to fifty or sixty pages (assuming these to be of ordinary octavo size) even of small type? The capacity of the Government of India to commit follies in hygienic matters appears to be (and indeed must be, so long as it displays such astounding ignorance) inexhaustible.

THE PULMONARY VASO-MOTOR SYSTEM.

THE pulmonary branches of the pneumogastric nerve have, for a long time, been supposed to exert an influence on the contractile tissue of the pulmonary vessels. This opinion has, however, lately been contested by Brown-Séquard and Vulpian, who ascribed to the thoracic branches of the sympathetic the influence previously attributed to the pneumogastric. M. François Franck has been investigating the subject anew, and his results confirm the very conclusive experiments of Brown-Séquard. He has endeavoured to ascertain the vaso-constrictor action of the first thoracic ganglion upon the lungs by measuring the effect which stimulation of this ganglion exerts upon the circulation through the heart. If the vessels of the lungs contract, the pressure in the right side of the heart should be increased. Accordingly, it is found that when the nerves from the first thoracic ganglion are stimulated by an induced current of moderate intensity, for ten or twenty seconds, the pressure in the right ventricle gradually rises, remains high for about half a minute, and then slowly falls to the initial point. This result can hardly arise from any other cause than the contraction of the pulmonary vessels. If this be the cause, however, it should produce a corresponding fall in the pressure in the aortic blood, since the obstruction will hinder the passage of the blood to the left ventricle. The effect on the aortic system was estimated by measuring the blood-pressure at the central extremity of one carotid. The first effect was a slight rise, and this was followed by a considerable fall, which went on until the pressure in the right heart reached the normal point. The slight initial rise of pressure is an event which *à priori* reasoning would not have suggested. An explanation which M. Franck has given seems likely to be the correct one. The contraction of the vessels, which presents an obstacle to the action of the right heart, also expels an additional quantity of blood from the lungs into the left side of the heart, and the result is that the left ventricle, for a moment, sends an increased quantity of blood into the aorta, and this causes the transient rise of pressure. A very similar effect on the circulation may be produced by the compression of the vessels by excessive pressure of the air in the pulmonary vesicles. The effect on the right heart and venous system during severe coughing is, of course, familiar. M. Franck has reproduced it experimentally by inserting a tube into the trachea of a curarised dog, and then insufflating the lungs with considerable force. Lastly, the same phenomena occur as on faradisation of the sympathetic, including the initial rise in the pressure in the aortic system. The effect is produced equally well, whether the thorax is opened or closed—an important fact, since when the thoracic walls are intact some effect might be ascribed to the direct pressure upon the great vessels.

Another set of experiments were made to ascertain whether the pneumogastric nerves contain any fibres having an action on the pulmonary vessels. To learn this it was necessary first to eliminate the action of those nerves on the heart itself. This was effected by placing the animal under the influence of atropine, which, as is well known, prevents stimulation of the cardiac extremity of these nerves from having any effect on the action of the heart. Under these conditions stimulation of the cervical part of the pneumogastric produced no action on the blood-pressure either on the right side of the heart or on the aortic system, which could suggest an action upon the vessels of the lungs. The experiments were repeated after the thorax had been opened, the colour of the lungs being observed, and at the same time the pressure on the pulmonary artery ascertained. Stimulation of the pneumogastric under these circumstances caused no pallor of the lungs, nor any increase of pressure on the pulmonary artery.

If, therefore, the vessels of the lungs can be made to contract by any reflex mechanism, as by irritation of the abdominal viscera, as has been asserted, the reflex action must be exerted through the sympathetic, and not through the pneumogastric nerves.

THE LATE MISS NEILSON.

DR. W. E. JOHNSTON, of the Boulevard Malesherbes, Paris, writes to *The Times* as follows:—"For the last five years I have had the charge of Miss Neilson's health during her visits to Paris, one of the treatments running through a period of four months. The disease from which she suffered principally was gastralgia—one of the forms of dyspepsia attended with neuralgia of the stomach, a form extremely fantastic in its coming and going, and in her case quite as dependent on moral causes as on errors of diet. The last fatal attack in the Bois de Boulogne was evidently one of her usual attacks of gastralgia, which might have been relieved then, as it often had been before, by a free use of morphine. The unfortunate lady sent her maid for me at seven o'clock, but to my great regret I was absent that evening on a visit to my family in the country, and did not hear of her illness till I heard of her death. At three o'clock in the morning, twelve hours from the commencement of the attack, during a most violent recurrence of the pain, she suddenly ceased to complain, went into a state of syncope, and died in the syncope. The post-mortem examination made the next day by Dr. Brouardel, Professor of Legal Medicine at the Medical School of Paris, and now one of the first authorities in Europe in legal medicine, disclosed the extraordinary fact, one of the rarest in the history of medicine, that in her writhing she had ruptured a varicose vein in the left Fallopian tube, and had died from internal hæmorrhage. Two quarts and a half of blood were found in the peritoneal cavity, and the ruptured vein presented an orifice of from four to five millimetres in diameter."

The following additional particulars of the fatal illness of the distinguished *artiste* will be read with interest:—Dr. Monnier, of 12, Rue Copernic, was sent for and arrived at four o'clock. He found great physiological disturbance and vesical irritation, pains in the back, and oppression of the chest with difficulty of breathing; pulse scarcely perceptible. He ordered tea; administered laudanum and ether, and gave instructions for linseed-meal poultices to be applied. The pain was not permanently relieved. Syncope occurred shortly afterwards, but the patient was restored by the application of warmth. Some time subsequently copious vomiting set in. About this time in the case a curious incident occurred, which somewhat disturbed the patient: a bat flew in at an open window and hovered around the bed. "Look at that great bird flying about me!" said Miss Neilson. After a while she grew quieter, and Dr. Monnier took his leave. Subsequently Dr. Gantillon was called in and ordered two pills (colocynth), which acted freely. At 3.30 Dr. Monnier received an intimation that the patient was

worse. On arrival at the house he found her apparently asleep, but was somewhat alarmed by her appearance. On returning to the room after a short absence, he discovered Miss Neilson had been dead about half-an-hour.

ENGLISH SURGERY IN JAPAN.

MR. C. J. MANNING, who left University College Hospital five years ago to undertake the duties of Surgeon to the General Hospital, Tokio Fu (Yeddo, Japan), and Lecturer in Surgery, is about to return to this country, his term of office having expired. We have received the following extract, a translation from the Japanese papers into the Yokohama English paper, which will show how well his services have been appreciated :—

"The term of service of Mr. Manning, of the Tokio Fu Hospital, having expired, the Governor of the Fu and the Superintendent of the Central Board of Health waited on the doctor at the hospital on the 1st instant, and gave him a certificate praising him for his skill and care in the management of the establishment, together with 350 dols. as a donation. Mr. Manning expressed himself pleased with the compliment thus paid him, and said the document would be valuable to him, but that he did not wish to accept the money, which he desired to be distributed amongst the poor of the Fu; it was accordingly handed over to the Fucho officers. Yesterday a grand entertainment was given to the doctor in the Seiyo Ken Restaurant."

THE INFLUENCE OF PEROXIDE OF HYDROGEN ON FERMENTATION.

IT has been shown by M. Paul Bert that oxygen at a high pressure destroys organised beings, and thus arrests all fermentations that are due to the growth of organisms, while it is without action upon the soluble ferments. It kills bacteria and microphytes, while it has no action on the salivary or pancreatic ferments. M. Regnard has instituted a series of experiments to ascertain whether substances which contain oxygen in a state of chemical tension—i. e., in a nascent condition—are capable of exerting the same influence. His first experiments, the results of which have been communicated to the Société de Biologie, have been made with peroxide of hydrogen. Some yeast was placed in two flasks containing a solution of glucose. To one was added a few drops of a solution of one cubic centimetre of peroxide of hydrogen in 100 grammes of ordinary water. To the other no addition was made. In the flask containing peroxide of hydrogen no fermentation took place, while in the other it proceeded rapidly. A quantity of common red wine was next taken, and divided into six parts. To three a few drops of peroxide of hydrogen were added, and the three others were left for comparison. At the end of a few days the latter were completely covered with mycoderms, while the others to which the peroxide of hydrogen had been added remained clear, and resembled in appearance that which had been exposed to compressed oxygen. If the quantity of peroxide of hydrogen was greater the wine became yellowish, and the colouring matter, oxygenated, fell to the bottom, the liquid acquiring an ethereal odour similar to that of sherry. Milk to which peroxide of hydrogen had been added, remained free from fermentation, and uncoagulated, at the end of a month. Two flasks were shown in which white of egg had been placed a month before. One had putrefied and stank horribly. To the other a few drops of peroxide of hydrogen had been added, and it was perfectly unchanged; urine and hydatid liquid behaved in precisely the same manner. On the other hand, the liquid was found to have no power to prevent the change of starch into glucose by saliva or pancreatic juice. The effect is thus exactly the same as that found by M. Bert with compressed oxygen.

The effect of the peroxide of hydrogen is not permanent. If the oxygen is allowed to escape, putrefaction occurs. There are two possible theories regarding its mode of action. (1) The real action may be that of the nascent oxygen. (2) The effect may be due to its own molecular constitution. It is possible that, if the latter theory be true, compressed oxygen acts simply by forming, in the liquid exposed to its action, the peroxide of hydrogen, and M. Bert is inclined to accept this explanation of his researches.

These results are of interest, and deserve notice, but the influence of peroxide of hydrogen on fermentation is not a new discovery. Two years ago it was pointed out by Guttmann, and before him by Fraenkel (THE LANCET, 1878, vol. ii., p. 839). Of these observations M. Regnard seems to be unaware. The confirmation of previous research is important, but the case presents another instance of the ignorance of French scientists of that which goes on beyond the boundary of France, and which, as we lately remarked, renders so large a part of the scientific investigation in that country a series of rediscoveries of facts which have been already ascertained elsewhere.

TINNED FOOD.

LAST week we reported the poisoning, happily without fatal result, of a family at Barnsley from the ingestion of corned beef, which had been imported in the ordinary tin canister. We have since received authentic information of a case in which several members of a household suffered seriously after eating sardines preserved and vended in a similar enclosure. The father, who first partook of the fish, was affected but slightly, and failed to refer his ailment to what would appear to have been the real cause. Next day four of his children ate of the sardines from the same tin, and were attacked soon afterwards with severe vomiting, accompanied by considerable prostration. The other members of the family, who had not partaken of the sardines, experienced no disturbance of health. The facts seem to point to the tinned food as the source of mischief in this case, though whether the poison resided more immediately in the case, the solder which cemented it, or the fish itself, is not so evident. Meanwhile these recent instances suggest caution in the use of a description of food the consumption of which appears to be on the increase.

ANÆSTHETICS IN 1651.

IN a recent work, entitled "Histoire de la Médecine à Troyes," Dr. Guichet relates that the College of Physicians of that town brought an action against a certain Nicolas Bailli for administering internal remedies to his patients and *putting them to sleep*. In defence Bailli declared that having observed that in great operations, amputations, incisions, actual and potential cauterisations, many patients slipped through his hands for want of sleep, he had studied the secrets of nature, and had at last found a cordial, or marvellous essence, which put them to sleep softly, and appeased their sensibility to pain.

DEATH OF SURGEON W. A. BURGES, M.D., ARMY MEDICAL DEPARTMENT.

WE regret to announce the death, at Meerut, East Indies, on the 22nd July, of Surgeon William Armstrong Burges, rom the effects of a fall from his horse. Dr. Burges entered the army as recently as September, 1875, and had nearly completed his first tour of Indian service.

POISONED HAM AND HERRINGS.

THE French police authorities have forbidden the sale of imported hams known in the trade as "Cincinnati." The yellow material in which they are sewn is coloured with a chromate of lead. It is also said that they frequently

contain trichinæ. It has been found too that the golden hue, so appreciated by amateurs of "bloaters," is often imparted to them artificially by purveyors of this delicacy. Analysis has revealed here again the presence of one of the most toxic chromates.

THE Public Health Committee of the Corporation of Dublin have suggested in a recent report that, should a Convalescent Home be established, it be connected with Cork-street Fever Hospital; that a capitation fee for each inmate admitted from the city be paid by the Corporation; and that the funds collected for the erection of a Convalescent Home be transferred to the Governors of the Fever Hospital. The report has been adopted, with the exception of the clause pledging the Corporation to support a home at the hospital.

A SAD accident by which a member of our profession met with his death is reported in a local paper. Mr. H. J. Heywood, M.R.C.S., of Pendleton, to secure sleep whilst suffering from a painful malady had occasionally resorted to the use of chloral. The drug was, it appears, kept on the mantelpiece beside a bottle of prussic acid, which, one night last week, was taken in mistake for the hypnotic. The occurrence has created a feeling of general regret, and of profound sympathy with the bereaved members of the family of the deceased.

THE King's College Hospital "old students' dinner" is announced for October 1st, and will take place at the Inns of Court Hotel; Dr. Peter Eade, of Norwich, in the chair. It is to be hoped that the dinner will be as great a success as it was two years ago, when Professor Henry Smith acted as chairman, and that friends in the country will endeavour to be present. The honorary secretaries are—Mr. W. P. Goodall, Birmingham; Mr. Martin G. B. Oxley, Liverpool; Mr. H. Royes Bell, and Dr. Hayes, London.

THE French Minister of Public Instruction has named Dr. Mathias Duval, Professor agrégé of the Faculty of Medicine of Paris, to the posts of Director of the Laboratory and Professor at the School of Anthropology, vacant by the death of Paul Broca.

THE prize offered by Mr. V. F. Benett-Stanford, of the value of £100, for the best essay on Hydrophobia, its nature, prevention and treatment, has been awarded to M. Bourrel, of Paris.

PROFESSOR GROSS, D.C.L., LL.D., &c., has been spending the past week in the Isle of Wight with Mr. Erichsen. He intended sailing for Philadelphia on the 25th inst.

THE physician of Lyons who endeavoured to emulate Dr. Tanner gave up the attempt after a week's trial.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

West Bromwich, Urban Sanitary District (area 5710 acres, population 53,609). Dr. Manley reports for 1879 a birth-rate of 42·6 per 1000 population, and a death-rate of 23·3. Infantile mortality was at the rate of 16·7 per 1000; and Dr. Manley holds, erroneously, as we think, that a high birth-rate means a high infantile death-rate. An epidemic of scarlet fever, the early severe weather, and the privations from bad trade, contributed to swell the mortality of the year. West Bromwich would appear to be in a transition state in regard to sanitary matters, but the period of transition does not seem to be very clearly marked; and it is not quite clear that the change is beginning at the right end. Of the measures still required to be adopted in the district before "perfection" is attained, the Medical Officer of Health enumerates first the registration of infectious diseases, the provision of hospital accommodation for such diseases, and also of a mortuary and disinfecting chamber—all very necessary sanitary requirements if a sanitary authority is to do its duties effectually, but requirements we should be disposed to subordinate to the provision of the rudimentary conditions for the maintenance of health among a community. For it appears that even these are wanting in West Bromwich, as the medical officer of health enumerates among the further requirements of the place "public drainage" (only "now under consideration"), the "provision of pure water," "the prevention of building operations on insanitary sites," the regulation of new buildings, of the keeping of all kinds of animals, of lodging-houses, and of a local practice of cultivating damp in houses. We would reverse the order of his recommendations, putting those first which he gives last, and making those last which he gives first. Moreover, the death-rate from infectious disease, considerable though it may be, would not justify the sanitary authority in giving predominance to a particular method of treating them, above those general sanitary measures which are not only of the highest importance with reference to this one class of maladies, but are also of equal importance with reference to the other classes of disease which contribute to the mortality of the district.

PROPOSED SANITARY HOSPITAL AT PLYMOUTH.

Some time ago, under the combined pressure of a severe epidemic and the Local Government Board, the Town Council of Plymouth entered into negotiations for obtaining a plot of ground for the site of an infectious disease hospital. Pending the negotiations the epidemic ceased, and now that the Council is called upon to ratify the terms for the purchase of the site and give instructions for obtaining money for the purpose, doubts have arisen among the members as to the advisability of erecting a hospital at all, and it is obvious from recent proceedings that those members who are favourable to the scheme have cooled in their desire for its completion. Indeed, epidemics are fleeting; and it is clearly the opinion of several members of the Council that when over they are best forgotten. But, unfortunately for this easy-going view of the question, the Council are not allowed to forget, by reason of the Local Government Board continually refreshing their memory. Indeed the Council have to meet two evils—the evil of epidemics, which, however, recur only at intervals; and the evil of the Local Government Board, which they find to be a persisting one. The former evil may be conveniently forgotten at times, but the latter not; and the Council would appear to have promised the Central Board to make hospital provision. But, argues one member, the Council will be re-elected in November, and we cannot bind our successors; let us postpone the question in the hope that the next Council may take a different course to the present. Then, argue others, the site proposed to be bought is much too large for a hospital, and it is suggested that a part of it shall be laid out as a recreation-ground; let us convert it all into a recreation-ground. Recreation is a more pleasant way of spending time than rooting out infectious disease from our midst and housing it in a corner. What does it matter that the land has to be bought for hospital purposes? Are municipalities to be governed (Mr. Town Clerk notwithstanding) by rules of morality similar to those which apply to individual ratepayers? This sort of argument very nearly prevailed, for the Council decided to purchase the site, by a majority of *one* only. The erection of the hospital will still have to be considered, and November is approaching!

THE CULTIVATION OF THE INFECTIOUS DISEASES OF INFANTS.

At a recent meeting of the Orrell Local Board, near Wigan, in Lancashire, the Clerk, in illustration of the difficulties which beset the control of infection, mentioned a practice which exists in that district, of mothers deliberately exposing their young children to the infection of scarlet fever and whooping-cough, under the belief that it was better that the children should have the disease while young. He designated the belief as a "superstition." We would

rather term it a tradition, arising from the imperfectly understood results of experience. The practice described is by no means confined to the part of Lancashire under consideration. Our own knowledge of it is somewhat extensive, but the exposure, so far as we have met with it, has been invariably limited to the obviously mild cases of infectious disease, and two elements entered into the practice. First, there was the practically universal belief that the infectious diseases of children had to be undergone by every child, and the sooner they were got over the better for the child, both as to its chance of recovery and its subsequent welfare; and next there was the belief that if a child contracted the disease from a *mild* case, it would have a mild attack, hence mild cases were selected to *catch* the disease from. In both these elements there was a substratum of truth, which long experience and common observation had shown, and which was unchecked by the more precise observation of the medical man.

DRY ASH AND EARTH CLOSETS IN RURAL DISTRICTS.

Mr. Leonard Armstrong, the medical officer of health for the Newton Abbot Rural Sanitary District, has published in a separate form, for facility of circulation, a pamphlet on the "Advantages and Arrangement of Dry Ash and Earth Closets in Country Districts." The contents of the pamphlet form an appendix to his annual report, and he has done well thus to issue it separately. In this pamphlet he endeavours to show the sanitary advantages which would arise from the substitution of dry ash and earth closets for the kind of privy accommodation which commonly exists in rural districts, and which, as is too well known, usually constitutes the most formidable nuisance in a district. He adds, also, some observations on the disposal of slop-water, so as to avoid nuisance therefrom.

We cannot commend too highly efforts of this kind to instruct sanitary authorities and householders in the essential requirements of health in regard to the common structural arrangements of houses. Mr. Armstrong, moreover, is not content to confine himself to the enunciation of general principles. Convinced that water-carriage of excremental matters is rarely applicable to rural districts, he goes further, and gives plans and instructions for the construction and arrangement of a common privy suitable for them. Privies constructed on this plan would be a great improvement, and we are unwilling to criticise what would be a distinct advance on the common form of privy. But Mr. Armstrong has apparently omitted to observe that the Local Government Board has, in its model bye-laws relating to new buildings, laid down certain principles of privy construction, some of which are not observed in his plan. In a matter of this kind local authorities may not care to come into collision with the Board upon a principle of construction, and it is certainly, in the interest of the subject, desirable to avoid such collision. We should have been glad if the difference in principle could have been avoided in this case, lest it should breed trouble hereafter, and tend to weaken (so ready are people to seek excuses for not doing sanitarily what they ought to do) the beneficial effect which may be looked for from Mr. Armstrong's pamphlet.

SCARLET FEVER AT WARRINGTON—A NOTABLE EXPERIMENT.

Scarlet fever has appeared at Warrington, and the progress of the disease there will be watched with exceptional interest. In 1878 (if we mistake not the date) Warrington obtained from Parliament, in an Improvement Act, which the Corporation then promoted, powers to require the notification of infectious diseases, and, if the local authority deemed fit, for compelling the removal of persons suffering from them to hospital. Previously the Corporation had erected a hospital for the reception and isolation of patients suffering from infectious maladies. The present appearance of scarlet fever in the town is the first which has occurred, we understand, since the hospital was completed and the Corporation were given the extraordinary powers of dealing with infectious diseases which are contained in the Improvement Act. Now the Corporation, it seems, aided by their medical officer of health, Mr. Joseph, and after conference with the medical men in the town, are determined to put the powers they possess for the isolation of cases of infectious disease into force, and endeavour to suppress this outbreak of scarlet fever at the outset. The result of this attempt will be watched with no little interest. Already twenty of the earliest cases of the disease have been isolated in the Corporation hospital; but the disease is reported to be so very mild that it is feared the praiseworthy efforts of the local authority may be largely foiled by the non-recognition of slight cases. The disease, however, is at present confined to one locality of the town; and a house-to-house visitation is now being made there in search of cases; steps, moreover, have been taken to close the schools.

THE MEDICAL OFFICERS' SUPERANNUATION ACT.

A Parliamentary return has been issued showing the number of applications made under the Medical Officers' Superannuation Act (England) to boards of guardians for superannuation allowances. From this return it would appear that since the passing of the Act in 1870, out of 649 unions in England and Wales, applications for allowances have been received from medical officers by the guardians of 108 unions. In these unions 122 applications were made, 70 were granted, 50 were refused, and two had not been decided upon at the date of the return. Among the reasons for refusals of application, we find the following, "the guardians were of opinion that the officer after seventeen years' service, had been sufficiently paid for what work he had done;" in two instances, after forty-one and forty-two years' service respectively, "the officer was comfortably off;" in one instance, after forty-two years' service, the guardians had an "objection to the entire system of superannuation;" in another instance, after twenty-two years' service, because the officer "was not incapacitated by age or infirmity; he left the union for his own advantage." In several instances superannuation allowances were not granted because the guardians held that the officer had sufficient means from other sources, either as private means or as derived from private practice.

A WHIP FOR SANITARY AND POOR-LAW AUTHORITIES.

It is announced that at a coming diocesan Conference in the West-Midland district the following resolution will be proposed—namely, "That it is the duty of members of the conference to see that the sanitary and other Acts passed for the benefit of the poor in their parishes are more carefully carried out than at present is the case in many districts." If this resolution be adopted the sanitary and poor-law authorities of the particular diocese must look for a troublesome time; but they may console themselves with the thought that if the supporters of the resolution have no clearer notion of the purposes of the sanitary "and other Acts" referred to than would appear from the phraseology above quoted, their active interference is likely to prove more harmful to their own influence than beneficial to their poor parishioners. If clergymen were to set themselves intelligently to cultivate among ratepayers a closer attention to, and more active supervision of, the doings of their sanitary and poor-law representatives, they would contribute to a great and much-needed work, and more certainly secure the objects which it may be presumed are had in view in the resolution quoted.

THE CONTROL OF INFECTIOUS DISEASES.

The growing interest of the profession, as we are pleased to think, in the question of the control of infectious diseases, is indicated in a pamphlet from the pen of Mr. Donald Murdoch, M.R.C.S., on the necessity for further suppression of infectious disorders, just published by Stanford. Mr. Murdoch, in common with many other medical men, sees that the present provisions of the law for preventing the spread of infection are very inadequate, and he offers various suggestions by which he thinks the law might be amended, and medical men and sanitary authorities enabled more effectually to hold in check infectious disorders. He views the matter chiefly from the medical point of view, and with reference to the help which might be given by medical men in bringing about the end he aims at; and he has not quite adequately appreciated in his recommendations the difficulties which influence legal men, magistrates, and sanitary authorities in dealing with the subject. He attaches primary importance to the recommendation that every legally qualified medical practitioner shall give notice to the sanitary authority of every case of infectious disorder that occurs in his practice, within twelve hours (twenty-four in rural districts) after the recognition of the complaint by him, and here at least he will find himself in accord with a large proportion of public-health reformers.

THE DRAINAGE OF WORKHOUSES.

The Local Government Board has issued a circular to Boards of Guardians relative to the drainage of workhouses. Nothing could well be better than the advice given in it, and altogether it forms an excellent summary of the primary requirements of the drainage of buildings. But the puzzle of the matter is this, that advice of this sort should at this late date be required in institutions so long and so rigidly (as it is presumed) supervised. So it is, however, and the circular states that the Local Government Board have had under their consideration the reports made from time to time by their inspectors regarding the system of drainage in operation at various workhouses and other poor-law institutions, and it is evident to them that in many instances the arrangements in this respect are not as satisfactory as could be desired. If guardians go wrong now as to drainage arrangements, in view of this circular, it must be from pure parochial perversity, and we may be permitted to hope that, in future, workhouses, and particularly the new ones, will furnish examples of such drainage as domestic dwellings should possess.

Dr. Griffin, medical officer of Louisburgh Dispensary district of the Westport Union, in a late report to the Local Government Board, states that a permanent fever hospital at Louisburgh is absolutely indispensable. The attention of the Westport guardians has been recently directed to this matter by the Board, but the former appear to doubt the necessity, and have requested Dr. Griffin to produce the names of the thirty-one fever patients stated to have been under his care.

A broker in the Borough has been heavily fined for having, under a distress warrant, removed articles of furniture and bedding from a room in which a patient suffering from small-pox was lying, and offered them for sale without previous disinfection.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The high rate of urban mortality last week was again caused by the fatality of summer diarrhœa. In twenty of the largest English towns, estimated to contain in the middle of this year seven and a half millions of persons, or nearly one-third of the entire population of England and Wales, 5191 births and 3490 deaths were registered last week. The births exceeded by 6, and the deaths by 215, the average weekly numbers during 1879. The deaths showed, however, a decline of 77 from those returned in the previous week. The annual death-rate per 1000, which had risen steadily from 18·9 to 24·8 in the seven preceding weeks, fell last week to 24·3. During the past seven weeks of the current quarter the death-rate in these twenty towns has averaged 22·3 per 1000, against 25·5 and 17·8 in the corresponding periods of 1878 and 1879. The lowest death-rates in the twenty towns last week were 16·0 in Brighton, 16·4 in Bristol, 19·9 in Wolverhampton, and 21·3 in London. The rates in the other towns ranged upwards to 31·5 in Manchester, 33·1 in Salford, 34·5 in Leicester, 34·8 in Plymouth, and 39·7 in the borough of Hull. The high death-rates in these last-mentioned towns were mainly due to excessive diarrhœa fatality.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had steadily increased from 406 to 1100 in the ten preceding weeks, further rose to 1136 last week. These included 864 from diarrhœa, 105 from scarlet fever, 60 from whooping-cough, 48 from measles, and 40 from different forms of fever. The annual death-rate from these seven diseases averaged 7·9 per 1000 in the twenty towns; and while it was but 2·9 and 3·9 in Bristol and Brighton, it ranged upwards to 15·0 and 24·1 in Hull and Leicester. Scarlet fever showed the largest proportional fatality in Oldham and Leicester. Three deaths from diphtheria were returned in Birmingham. Small-pox caused 4 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily declined in the four preceding weeks from 200 to 134, were 135 on Saturday last; 30 new cases of small-pox were, however, admitted to these hospitals during the week, against 15 and 20 in the two previous weeks. The Highgate Small-pox Hospital contained seven patients on Saturday last.

The fatal cases of diarrhœa in the twenty towns, which in the nine preceding weeks had steadily increased from 51 to 807, further rose last week to 864. The annual death-rate from diarrhœa averaged 6·0 per 1000 in the twenty towns; it was equal to 3·8 in London, and to 8·1 in the nineteen large provincial towns. The death-rate from diarrhœa among the twenty towns ranged last week from 1·7 in Bristol, to 12·9 in Hull, and 20·1 in Leicester. In the last-mentioned town the diarrhœa rate has risen from 3·6 to 20·1 during the past four weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 175 and 152 in the two preceding weeks, were 167 last week, and exceeded the corrected weekly average by 26. Of these 167 deaths 93 were attributed to bronchitis, and 48 to pneumonia. The annual death-rate from diseases of this class was equal to 2·4 per 1000 in London, and 3·7 in Liverpool.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week averaged 18·6 per 1000, and was below the mean of the six preceding weeks; this rate was 5·7 below the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 9·7 and 14·6 in Perth and Aberdeen, to 20·4 and 27·6 in Leith and Paisley. The deaths from the seven principal zymotic diseases in the eight towns were 127, against 125 and 122 in the two preceding weeks; they included 65 from diarrhœa, 22 from whooping-cough, 17 from scarlet fever, 8 from measles, 8 from diphtheria, 7 from fever, and not one from small-pox. The annual death-rate from these seven diseases averaged 5·1 per 1000 in the eight towns, against 7·9 in the large English towns. The excess of the zymotic death-rate in the English towns was almost entirely due to the greater fatality of infantile diarrhœa. There were no deaths from the seven zymotic diseases in Perth, and the zymotic rate was but 1·5 in Aberdeen, whereas it ranged upwards to 8·0 and 8·5 in Leith and Paisley; the excess in the zymotic death-rate in Leith was due to scarlet fever, and in Paisley to diarrhœa and whooping-cough. The fatal cases of diarrhœa in the eight towns, which had declined in the week before last to 51, rose again last week to 65, a higher number than has been returned in any week of the current quarter. The annual death-rate from this disease did not average more than 2·6 per 1000, while in the English towns the rate was equal to 6·0. The highest proportion of fatality of diarrhœa in the Scotch towns occurred in Greenock and Paisley. The 22 deaths from whooping-cough included 9 in Glasgow, and 7 in Edinburgh. Seven of the fatal cases of scarlet fever occurred in Glasgow and 6 in Leith. Four of the deaths from measles were returned in Glasgow; and diphtheria caused 3 deaths in Edinburgh, 2 in Glasgow, and 2 in Dundee. The deaths referred to fever, which had been 13 and 17 in the two previous weeks, declined last week to 7, of which 6 were recorded in Glasgow. The deaths attributed to acute diseases of the lungs (bronchitis, pleurisy, and pneumonia) were 39 in the eight Scotch towns last week, against 67 and 70 in the two preceding weeks; the annual death-rate from these diseases was equal to 1·6 per 1000, against 2·4 in London. The causes of 81, or 17 per cent., of the 463 deaths registered in the Scotch towns last week were uncertified; in the English towns the proportion of uncertified causes of death was scarcely two per cent.

HEALTH OF DUBLIN.

The rate of mortality again showed a marked excess in Dublin last week, and was equal to 37·8 per 1000, against 35·3 in each of the two preceding weeks. During the past seven weeks of the present quarter the death-rate in the city has averaged 32·6 per 1000, against 22·1 in London, and 17·9 in Edinburgh. The 228 deaths in Dublin included 56, or no less than 25 per cent., which were referred to the seven principal zymotic diseases, showing but a slight decline from the high number returned in the preceding week; 5 resulted from small-pox, 3 from measles, 15 from scarlet fever, 3 from whooping-cough, 5 from different forms of fever, and no less than 25 from diarrhœa. The annual death-rate from these seven diseases was equal to 9·3 per 1000 in Dublin last week, against 5·6 in London, and 4·8 in Edinburgh. The fatal cases of small-pox and measles showed a decline from recent weekly numbers. The deaths from scarlet fever corresponded with the number returned in the previous week. The fatal cases of diarrhœa, which had

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averaged but 4 weekly during July, rose successively to 9, 23, and 25 in the first three weeks of August, and were equal to an annual rate of 4·1 per 1000; this rate, however, was considerably below the average rate in the twenty large English towns.

INFANTILE DIARRHŒA IN LEICESTER.

Infantile mortality has begun during the past few weeks to show the marked increase in Leicester which usually takes place in that time during the season of summer diarrhœa prevalence. The weekly number of deaths registered under one year of age in that town, which averaged but 13 during June, steadily and rapidly increased during July, and were successively 30, 42, and 48 in the first three weeks of August. This increase is almost entirely due to diarrhœa fatality, which caused but 2 deaths in June, 25 in July, and 19, 26, and 30 respectively in the three weeks ending last Saturday. The excessive fatality of diarrhœa in Leicester has been the subject of much investigation and many theories, but it cannot be separated from the fact that the rate of infant mortality from all causes is excessive in Leicester, and that the excess in the rate is only partially accounted for by the fatality from diarrhœa. During last year the proportion of deaths under one year to births in Leicester was 185 per 1000, although the year was remarkable for the small recorded fatality of diarrhœa. The nearest approach to so high a rate of infant mortality in the twenty large towns dealt with in the Registrar-General's weekly return occurred in Salford, where, however, the rate did not exceed 170 per 1000. Dr. William Johnson, the Medical Officer of Health for the borough, freely admits in his last report—what he was previously inclined to dispute—that the excessive death-rate of infants in Leicester is not confined to diarrhœa. During the ten years 1870–79 infant mortality in those twenty towns averaged 171 per 1000, and ranged from 141 and 158 in Portsmouth and London, to 216 both in Leicester and Liverpool; the nearest approach in the other towns was 192 in Leeds. Dr. Johnson in his last report gives some valuable and interesting tables conclusively proving what we have frequently noticed in these columns in connexion with the high rate of infant mortality in Leicester—namely, that the death-rate in the borough at all ages above one year not only compares favourably with the rates in other large towns, but is below the standard English life table rates at those ages. His suggestion that crèches or nursing-homes should be established under medical inspection, and visited by Ladies' Committees, is a useful one, but something more must be done before Leicester will lose the stigma which now attaches to it as the town in which infant life is least successfully cared for among our largest towns. Dr. Johnson wisely exposes the fallacy of attributing the high rate of infant mortality to the high birth-rate; we cannot, however, agree with him in regarding the high birth-rate in Leicester as a natural consequence of the excessive infant mortality. For the cause of the high birth-rate in Leicester it is unnecessary to look much beyond the fact that the town population includes an abnormally large proportion of young adults.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE SANITARY COMMISSIONERSHIP OF INDIA.

A correspondent of the *Pioneer*, evidently well informed, questions the wisdom of doing away, at the present time, with the post of Sanitary Commissioner with the Government of India. Dr. Cunningham's reports, it is observed, have done this signal service, that they have shown clearly that very nearly half of the total deaths of the troops are due to three of the most easily preventable of all diseases—namely, cholera, typhoid fever, and dysentery. Of the total of 1212 deaths in the European army in India in 1878, cholera caused 226, typhoid 258, and dysentery 98, or altogether 582 out of 1212. Thus by abolishing the causes of these three diseases, the death-rate of the troops would be reduced nearly one-half. Dr. Cunningham has not had time apparently to make an exhaustive inquiry into the causation of disease at different stations. His reports are limited to mere expositions of numerical results without reference to the causes. But the time has now come for taking up systematically the investigation of the causes of sickness in each station on the plan which has been pursued for many years with remarkable success in England by the medical inspectors of the Local Government Board. One single example will show how important it is that such an investigation should be made. In olden days Jullundur was one of the healthiest stations in India, and for the last year it has been one of the most unhealthy, and this change in its condition has coincided with the erection of barracks on which a vast outlay was incurred. These barracks were first occupied in 1872, and between that year and 1878 the occupants of them have suffered from three severe epidemics—viz., in 1872 cholera and typhoid, 1875 typhoid, 1878 dysentery and typhoid. It is very singular, too, that while the occupants of the new barracks have been unhealthy, the artillery, who continue to occupy the old style of barracks, remain in the enjoyment of the good health of former times. The death-rate per 1000 of the two bodies is shown in juxtaposition as follows:—

	1872.	1875.	1878.
European Infantry, new barracks...	31·8	18·75	66·28
Artillery, old barracks	14·29	6·25	5·99

"I feel satisfied," says the writer, "that if this remarkable case were studied with the same exhaustive thoroughness as has been brought to bear for some years on the study of epidemic outbreaks in England, a flood of light would be thrown on the causes of disease, not in this particular instance only, but in all other stations where dysentery, cholera, and typhoid fever prevail. But the very moment when problems of this kind were pressing on for solution, has been chosen for abolishing the appointment of Sanitary Commissioner altogether."

THE INTERNATIONAL RED-CROSS HOSPITAL, BADEN.

The Russian journal, the *Béreg*, states that after the Franco-German war the central committee of the Russian Red Cross Society established a hospital at Baden for sick and wounded soldiers. These were provided with medical and surgical treatment and food at the expense of the society, and 338 patients were received into the hospital, of whom 183 were discharged cured, 183 improved, and 16 without having received benefit from their residence there. After the Russo-Turkish war the Red Cross Society re-established a hospital at Baden, but to the time of the *Béreg* giving this notice, only one Russian soldier had been sent there. Dr. Heidenreich, the principal medical officer, believes that this must have arisen from the existence of the hospital not having been made sufficiently known by those likely to profit by it, and he appears to have asked the intervention of the Russian press in publishing information concerning the hospital.

SCAVENGING IN DUBLIN.

The Dublin Corporation had last Monday under consideration a report of the Committee appointed in February last to deal with the question of public and domestic scavenging. The Committee, after receiving the report of a deputation which visited Glasgow, Manchester, Liverpool, and other towns in December last, and obtaining from the City Engineer and the executive officer of the Public Health Committee reports embodying their opinions as to the best means to be adopted, have recommended that the Corporation should take entire charge of the scavenging, and have the same carried out by their own staff under a competent manager. The expense of the department is estimated at £28,700 per annum, or a trifle over one shilling in the pound on the city rates. The report has been adjourned for a future meeting of the Council.

THE RUSSIAN RED-CROSS SOCIETY.

A *Te Deum* was announced to be celebrated in St. Petersburg on the 14th instant on the despatch of certain sisters of charity of the Community of the Exaltation of the Holy Cross to the assistance of the sick and wounded of the expedition to Akhal-Teké. Countess Elizabeth Milintine, one of the sisters, accompanies the detachment, and Dr. Stcherbak is attached to it as delegate of the Red-Cross Society. The assistance despatched by the Red-Cross Society to the expedition, in nurses, medical men and material, did not reach the scene of action until the operations of the troops had terminated. The efforts of the Society were therefore directed to the amelioration of the state of the sick and wounded they found in hospital on both coasts of the

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Caspian, but particularly on the Caucasian coast, where the greater number had been removed by the military authorities, and distributed in the hospitals of Baku, Temir-Khan-Schoura, Petrovsk, Grozny, &c.

REPORTED CHOLERA IN RUSSIA.

Russian journals report an outbreak of "cholera" at Saratov, on the Volga. The scanty particulars given suggest that the report refers to an outbreak of choleraic disease, probably caused by the consumption of some poisonous article of food, after the manner of the recent fatal choleraic outbreak at Welbeck.

WOOD PAVEMENT.

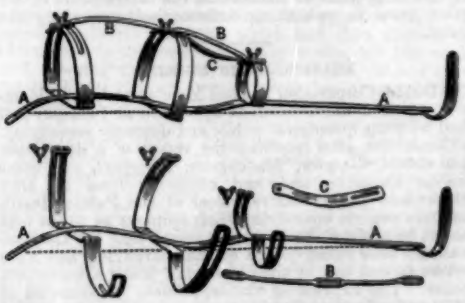
The Commissioners of Public Works have sanctioned a loan of £4000, part of the loan of £100,000 for the paving of Dublin, to be expended on wood pavements in certain portions of that city.

A further extension of diphtheria in the Government of Poltava, Southern Russia, is reported.

New Inventions.

DAY'S SPLINT FOR HIP-DISEASE.

THIS splint, which is the invention of Mr. E. O. Day, the medical officer of the Royal Hospital for Children and Women, is a modification, and we think an improvement, on Thomas's splint. It consists of a foundation rod, A A, extending behind the affected limb and the trunk. At its upper end this rod is recurved, so that any tendency to flexion when the child is raised by the foot is obviated. At its lower end there is a movable foot-piece which allows for growth, a very important matter to bear in mind when dealing with the chronic maladies of childhood. The trunk is grasped by two stirrup-shaped metal bands, which can be accurately fitted to the size of the body by means of slots and screw clamps. In this again we have a provision for growth and a possibility of utilising the same splint for more than one case. These bands being flat behind, prevent any



rolling movement of the apparatus, or any tendency of the foundation-rod to get to the outside of the limb. The thigh of the affected limb is surrounded by a circular metal band, also fastened by a slot and clamp. These three bands are united along their anterior aspect by clamps to a rod, B B, and thus the affected joint is enclosed in an absolutely rigid cage, while additional security is afforded by a flat brass rod, C, which is accurately fitted to the curve of the groin, and thus the perfect fixity of the joint is secured.

It is claimed for this splint that it is less cumbersome than most others, that it thoroughly immobilises the limb, maintains the parallelism of the legs, and dispenses with bandaging, and it certainly appears to us to be capable of doing all that is claimed for it. It is made by Mr. Eastgate, 73, Neale-street, Long-acre.

THE SERVICES.

WAR OFFICE.—1st Life Guards: Surgeon Henry Frank Hensman, from the 2nd Life Guards, to be Surgeon-Major, vice O. W. George, M.D., granted retired pay, and to have the honorary rank of Brigade-Surgeon; dated June 29th, 1880.

ARMY MEDICAL DEPARTMENT.—Brigade-Surgeon Thos. Teevan has been granted retired pay, with the honorary rank of Deputy Surgeon-General; dated July 30th, 1880. The promotion to the rank of Brigade-Surgeon of Surgeon-Major Charles Carroll Dempster is antedated to November 27th, 1879, such antedate not to carry pay prior to March 27th, 1880. Surgeon-Major Leslie Ogilby Patterson and Surgeon-Major William Creagh are granted retired pay, with the honorary rank of Brigade-Surgeon; dated August 25th, 1880.

Surgeon-Majors to be Brigade-Surgeons:—John George Faught, vice J. P. Cunningham, M.D., promoted; dated April 17th, 1880. William Henry Muschamp, vice J. O'Nial, promoted; dated May 26th, 1880. Edwin James Hopwood, vice T. S. Hollingsworth, granted retired pay; dated June 9th, 1880. Stewart Aaron Lithgow, M.D., vice J. Hannan, deceased; dated June 13th, 1880. William George Nicholas Manley, V.C., vice T. W. Fox, M.B., promoted; dated June 23rd, 1880. Oliver Barnett, vice W. Macnamara, M.D., granted retired pay; dated July 21st, 1880.

G. R. Gilruth, gent., to be Acting Surgeon to the 1st Edinburgh Corps of Volunteer Artillery; dated Aug. 21st, 1880.

ADMIRALTY.—Fleet-Surgeon George Mason, M.D., has been promoted to the rank of Deputy-Inspector-General of Hospitals and Fleets, with seniority of the 20th instant. The following appointments have been made:—Fleet-Surgeon W. Ross, M.D., to the *Duncan*, additional for temporary service; Staff-Surgeons W. H. Stewart to the *Cleopatra* (when commissioned); Robert Turner to the *Duke of Wellington*, for the *Victory*; Thomas S. Burnett to the *Valiant*; Jephson J. Connell to the *Cleopatra*; M. F. Ryan to the *Valiant*; A. Turnbull to the *Bacchante*; G. Maclean to the *Duke of Wellington*, additional for Haslar Hospital (for temporary service); G. M. Cuffe to Haslar Hospital.

Surgeon-General G. A. F. Shelton, Army Medical Department, has been appointed to succeed Surgeon-General William Munro, C.B., as Head of the Medical Branch, War Office, Whitehall Yard.

Deputy-Surgeon-General Stanhope H. Fasson, M.D., has been ordered to Aldershot, as Principal Medical Officer, vice Surgeon-General Shelton.

Brigade-Surgeon J. Ogilvy, M.D., has been transferred from Portsmouth to Aldershot on promotion, and will act as Sanitary Medical Officer of that garrison.

FRENCH NAVAL MEDICAL SERVICE.

It would appear that the British is not the only Navy which experiences a difficulty in recruiting medical officers. The French, notwithstanding the existence of three schools of medicine for the Navy supported by the Government, find the supply of candidates unequal to the requirements of the Service. To remedy this, a reorganisation of the Medical Department has been proposed in connexion with the scheme submitted respecting the *cadres* of the Navy. As the subject of attracting to the Service a sufficient number of well-qualified officers is believed to be at present under the consideration of the Admiralty in this country, it may not be without interest to our readers to see what is proposed to be done in France. The Department is to consist of two branches—the Medical and the Pharmaceutical; and these, again, are subdivided into the Health Service (*service de santé*) and the Educational Service (*service d'enseignement*). The following is the proposed scale of officers:—

Medical Branch.

1	Inspector-general of the health service,	ranking with rear-admiral.
3	Directors of instruction,	ranking after rear-admiral and before post-captain.
2	,, health service,	
1	Medical inspector.	
10	Chief medical officers of instruction,	ranking with post-captain.
12	,, ,, general service,	

13 Medical professors, } ranking with commanders.
40 Principal medical officers, }
200 Medical officers, 1st class, ranking with lieutenants.
250 ,, ,, 2nd class, ranking with sub-lieutenants.
150 Assistant medical officers, ranking with midshipmen.

Pharmaceutical Branch.

1 Apothecary-inspector.
5 Chief apothecaries of instruction.
1 Chief apothecary, general service.
6 Professors.
3 Principal apothecaries.
20 Apothecaries, 1st class.
26 ,, 2nd class.
28 Assistant apothecaries.

The apothecaries are to have the same relative rank as the corresponding grades of the medical branch. The professors are to be appointed by competitive examination from the principal medical officers and apothecaries, or those of the first class; and the higher grades of the educational branch are to be filled by selection from the professors. The staff of each of the naval medical schools consists of six medical and three pharmaceutical professors, with five assistants. It is proposed to add two professors to each school.

The relative rank to be granted to the medical officers is, we believe, a new feature in the French Navy, and will tend more than anything else to raise the prestige of the department and remove the difficulty which has been found in obtaining candidates for it. We trust that in our own service the Lords of the Admiralty will remember that an assured position in the service, placed by regulation beyond the petty and annoying interference of individual officers, will do more to render the medical department of the navy popular and ensure a supply of candidates than any mere addition to the pay without the removal of existing grievances.

SERVICE EXAMINATIONS.

The following are the questions in Anatomy, Physiology, Medicine, and Surgery, set at the recent examination of candidates for H.M. Naval, British, and Foreign Medical Services:—

Anatomy and Physiology.

1. Give a description of the ulna; enumerate the ligaments and muscles connected with it, and indicate the points of origin from, or attachment to, that bone.
2. Describe the anatomical relations of the parts that enter into the formation of the inguinal canal, and of an oblique inguinal hernia.
3. Describe the formation of the cervical plexus and its anatomical relations; enumerate the principal branches of distribution, and especially describe the origin, course, and distribution of the phrenics, and the part they take in the mechanism of respiration.
4. Describe the anatomical relations, the structure and functions, of the great intestine.
5. Give a description of the anatomical relations and distribution of the deep femoral artery and of its branches.
6. Describe the glandular structures by which saliva is formed. Give an account of the composition and physiological uses of that fluid.

Surgery.

1. In a case of compound fracture of skull, with depression and symptoms of compression, what treatment should be pursued? Firstly, as regards the fractured bone; and, secondly, the condition of the patient? State what would be the prognosis in such a case, and the reasons for the conclusion arrived at. Describe the process by which any deficiency of bone is made good when recovery takes place.
2. Describe the symptoms of gonorrhœal ophthalmia, its effects when not arrested, and the treatment to be pursued in its different stages.
3. What are the various causes of gangrene? Describe the symptoms by which each cause may be diagnosed, and the treatment of each variety.
4. Describe the various symptoms of hereditary syphilis, as they occur at different periods of life, and the treatment to be adopted for its relief.
5. Describe the constitutional and local causes which give rise to inflammation of veins, the various consequences liable to occur in such an attack, and the treatment to be pursued.
6. State the symptoms by which a psoas abscess, presenting in the thigh, may be diagnosed from a large cyst in the upper part of the femoral region. What are the pathological conditions attendant on psoas abscess, and what should be the treatment?

Medicine.

1. Describe (*a*) the causation, exclusive of traumatic causes; (*b*) the morbid anatomy; (*c*) the clinical phenomena and possible sequelæ; (*d*) the treatment of cases of cerebral hæmorrhage.
2. Give an account of (1) the intestinal lesions which are constant in cases of enteric fever, their progress and results in relation to the clinical phenomena; (2) the condition of the minute elements of (*a*) the glandular organs, (*b*) the heart, and (*c*) the voluntary muscles. Give a short summary of (*a*) the phenomena which are distinctive of enteric fever, and (*b*) the phenomena which it has in common with other febrile diseases.
3. Describe the symptoms, period of incubation, and usual course of a typical case of scarlet fever, with all its possible sequelæ.
4. Mention the causes, describe the symptoms and the appropriate treatment, of peritonitis.
5. Describe a case of puerperal fever.
6. Give an account of (1) the source, the physiological properties, and medicinal uses of (*a*) ergot, (*b*) belladonna. (2) Name the pharmacopœial preparations and the doses of each of the preparations you name. What are the antidotes in cases of poisoning from them?

Three hours were allowed for answering each paper.

Sixty-nine candidates have passed the examination, and will proceed to Netley.

MEDICAL TRIALS.

ARUNDEL COUNTY COURT.

MIDWIFERY CONTRACTS.—VINES V. STUART.

THE judge (Mr. A. Martineau) on August 17th gave judgment in this case, which had been adjourned. Mr. Vines, surgeon, of Littlehampton, had brought an action against defendant for £1 1*s.* damages for breach of contract in not employing him to attend defendant's wife in her confinement. The plaintiff's case was that, being the medical attendant of the family, the defendant's wife had asked him to attend her in her accouchement, the probable date of which was notified by him. A short time before the event, however, some misunderstanding arose between him and the defendant, and thereupon the defendant gave plaintiff notice that his services in attending the defendant's wife in her approaching confinement would not be required. The judge said (we quote from the *Sussex Daily News*):—"The plaintiff now insists—1st, that there was a definite binding contract on the part of the defendant to employ him, the plaintiff, as a surgeon at the confinement; 2nd, that the damages to which a surgeon is entitled in such a case are liquidated by well-established custom, which fixes them at the fee which the surgeon would have earned; 3rd, that if not liquidated by custom, the proper measure of damage is the fee that would have been earned. I reserved judgment, first to consider the question whether the engagement amounted to a contract, for breach of which an action will lie; 2nd, to consider what the proper measure of damage is. I may observe that my predecessor, in a similar case, decided that the doctor cannot recover damages, but the present Registrar of the County Court at Brighton, who argued the case of the doctor before Mr. Furner, having informed me that he had seen an article in a medical journal commenting on that decision, and referring to a case in the High Court, in which a judge had laid down that the measure of damage is the fee that would have been earned, I reserved judgment, hoping to find the case, but I have not been able to do so. I have, however, found a decision of the High Court reported, which tends to show that the measure of damage is different. I must, however, first dispose of the question whether the damages are liquidated by custom at the amount of the fee that would have been earned; and I feel no difficulty in holding that no such custom is proved. It would, I think, be very unreasonable that the damages should be the fee that would have been earned, for the surgeon would then get the same sum without responsibility or labour that he would have earned with responsibility and labour; and to establish such a custom, I should require the evidence, not only of medical men, but of patients, showing that the custom is well known to and accepted by those who employ as well as those who are employed. I hold, therefore, that in this case the damages are not liquidated, and assuming that there was a binding contract the damages must be ascertained by me, sitting as a jury, and they must be measured in the ordinary way, and upon the principles applicable in cases of breach of contract. The proper way to arrive at the damages (if any) is to take into account on the one hand that if the alleged contract had not been broken, the surgeon would, in all probability, have earned £1 1*s.*, but inasmuch as he would have earned that sum only with a certain amount of responsibility, loss of time, trouble, and labour, from which he has been freed, a corresponding deduction should be made from the £1 1*s.*, the fee that would have been earned; and if I were to deduct 10*s.* 6*d.*, leaving the surgeon with half a fee, my impression is that I should be very liberal to the surgeon, and that if he had had his choice between £1 1*s.* as remuneration for a great deal of trouble, and 10*s.* 6*d.* for doing nothing, he would have preferred the half guinea. I see my way, therefore, to the proper amount of damages, if there has been a breach of contract, for which an action will lie. But I have much more difficulty on the question of contract. I have no doubt

that a binding contract to employ a surgeon on some future day may be entered into, and in some cases I have no doubt such a contract is entered into; but I doubt very much whether the loose conversation between a surgeon and a lady in reference to the former attending her in her confinement on some distant day amounts to a definite binding contract, or that it is intended by either party that it should. The plaintiff lays stress on the fact that he made an entry in his books of the date in the presence of the defendant's wife, and that he could not leave home or go to a distance as long as he was under the engagement to attend. I do not think that alters the case. If there was a constraint there was no doubt consideration on both sides. I should observe—though this perhaps goes more to the question of the damages to which the plaintiff would be entitled if there were a contract—that for anything that appears to the contrary, the plaintiff in this case was fully employed and earning fees from other patients throughout the time that he would have had to devote to the defendant's wife if she had sent for him, and that he may have lost nothing. I lay no stress on the fact that the defendant gave notice to the plaintiff that his services would not be required before the event came off, or that the defendant having told the plaintiff that he had no confidence in him and did not want his services as medical attendant any longer. The plaintiff insists that, nevertheless, he ought to have been sent for. That is a mere matter of delicacy, as to which I say nothing, this being a court of law and not a court of delicacy. I think what passed between plaintiff and defendant's wife in this case did not amount to a definite contract upon which an action will lie. There will, therefore, be a verdict for the defendant, with costs."

SHEFFIELD COUNTY COURT.

Before T. Ellison, Esq. (Judge).

MASON *v.* PECK. — Mr. James Mason, surgeon, sued William Peck, mechanic, for £11 7*s.* 6*d.*, for surgical assistance. Mr. E. Knowles Binns represented Peck. Defendant is a member of the London and Manchester Industrial Assurance Company, of which the plaintiff is the local medical officer. Peck, whilst ill, was attended by Mr. Mason. The plaintiff sought to recover the debt on the ground that surgical operations were necessary in the case, and his agreement with the Insurance Company did not provide for the payment by it for that kind of work. The defence was that surgical assistance was not at all requisite in the treatment, and that the claim was thereby unsubstantiated. Mr. Knowles Binns said he had not seen the agreements with the society. He wished to do so before the case was decided. His Honour said he never had a more important case before him since he sat in the court, and he thought Mr. Mason should be represented by a solicitor. Mr. Binns, wishing to argue the points, the hearing would have to be adjourned. The case, according to arrangement, will come on on Nov. 12th.

Correspondence.

"Audi alteram partem."

REGINA *v.* INGLE: THE PENAL TREATMENT OF DISEASE.

To the Editor of THE LANCET.

SIR,—The letter of Dr. Pavy in your last number is a complete vindication of his action in this deplorable case. One point—that on which it was attempted to build a justification for the nurse—deserves, however, further consideration. Dr. Pavy says: "A great deal more was made of hysteria in connexion with the case at the trial than it was entitled to receive. The nurse in the inquiry before the treasurer had excused herself by saying that she had been given to understand that the patient was suffering from hysteria, and that she thought she was only putting in force the proper treatment."

This plea, of course, is rightly repudiated by Dr. Pavy. Still, that it should have been put forward and received to any extent is evidence of the persistence of an error, which is a reproach to medical science, and fraught with danger. This must be my excuse for offering the following observations.

Assuming this plea to be the real line of defence, three things are implied: 1, that hysteria is a disorder rather moral than physical; 2nd, that, therefore, hysteria may properly be treated on penal principles; 3rd, that a nurse is competent, of her own motion, to apply that treatment. If we admit the first proposition, the second *might*, perhaps, be accepted with some reservation; but admitting both, it would not follow that a nurse, acting on her own discretion, is competent to administer the penal treatment. But is it possible, in the actual state of medical science, to contend that the symptoms to which the conventional term "hysteria" is applied really constitute a morbid entity, or a special perversion of the moral element? In other words, is there such a thing as hysteria independent of bodily disease? I venture to affirm that there is not. Wherever the phenomena known as hysteria present themselves, there is surely underlying them as cause a pathological condition which it is the business of the physician to discover and to treat. To treat hysteria medicinally is to treat a symptom—a course sometimes judicious, but hardly scientific. To treat hysteria penally is, in plain language, to treat the patient brutally. Hysteria is no more an independent disease than is neuralgia, chorea, epilepsy, or other overt manifestation of disease or disorder of the nervous centres. As well might we apply penal treatment to these nervous phenomena as to hysteria. The penal treatment of hysteria is a remnant of the barbarous era of medicine, when lunatics were so treated. A favourite mode of treating lunatics in that barbarous period was by subjecting them to a protracted cold bath; and it is not a little curious to note that this was the remedy administered to the unfortunate woman at Guy's.

It may be freely conceded that in young women said to be hysterical there is a moral factor in the case which requires judicious moral management in addition to the more strictly medical treatment indicated by the underlying pathological conditions. But the physician must be extremely careful lest in the adoption of moral means he overstep the legitimate bounds of his profession, and trespass on the territory of the civil magistrate. And this it will be very difficult to avoid if he fall into the fundamental physiological error of supposing that moral or physical punishment is an essential element in the treatment of hysteria. Taking this view—one which cannot be overlooked—does it not follow that the physician who, without adequate safeguards, makes punishment a part of his materia medica, runs imminent risk of coming into collision with the law? Or to apply the argument to the case at Guy's, and supposing that the patient had suffered no injury from the cold bath, still, had not an assault been committed upon her?

Whether it be contended that hysteria is a moral perversion demanding punitive treatment or not, surely it is equally beyond the province of the physician, and, *à fortiori*, of the nurse, to administer it in this fashion. But I cannot help repeating emphatically that to regard hysteria as a moral disorder that can be usefully treated on penal principles is utterly unjustified by the actual state of medical knowledge. If we still use the word hysteria as "giving a name" to a disease, it ought only to be done provisionally, whilst we are searching for the morbid cause. Hysteria in this light, then, is simply an "asylum ignorantiæ"; an asylum which it is time to close.

Before concluding these observations on the penal treatment of disease, there is one more remark I am tempted to make. The recent movement for instituting a distinct Faculty of Nursing as something independent of the authority of the Faculty of Medicine is one which concerns the public even more vitally than it does the physician. However much the physician may be pained and harassed at seeing his best efforts thwarted by the perverseness of the nurse, after all it is the patient who suffers most. If those very ignorant, and, therefore, very presumptuous enthusiasts who foster this "new system of nursing" were to make themselves the first subjects of the experiment; well, this new form of vivisection might find justification! But when ignorance and presumption perform dangerous experiments upon the helpless poor, whose inheritance is dependence upon charity, then this vivisection assumes the more odious character of cruelty, if not of something worse.

I am, Sir, yours, &c.,

ROBERT BARNES.

Harley-street, August 24th, 1880.

GUY'S HOSPITAL AND THE OFFICE OF TREASURER.

To the Editor of THE LANCET.

SIR,—The misdoings and mismanagement at Guy's having been now very freely discussed, it might be well, with a view to bring good out of evil, to see how the hospital despotism complained of came to be; how it became centred in the office of Treasurer naturally and necessarily; how the conditions of society and of these institutions are now so changed that the office as administered can no longer be tolerated; and, this done, the remedy would seem to be easy. The earlier hospitals—notably St. Thomas's, of which Guy's is to some extent an acknowledged offset and copy—admitted not merely the sick but the foundling and the depraved; the charter of Edward VI. gave powers accordingly for the management. At the weekly meetings of the Court of Governors in those early times are frequent notices of delinquents tried, sentenced to whipping and other punishments. A whipping-post, called "the crosse," within the precincts, was in constant use, as its renewal and frequent repair shows. Even Sisters were whipped—notably Jane Thornton, in 1570, whose offence was no doubt grave, as the twelve stripes ordered were to be "well laid on;" others, younger, seem to have been privately whipped by the matron. Many with diseases the result of vice were first cured, then whipped or put in the stocks, as a warning before they were dismissed. Diseases pure and simple bearing upon insanity, or those lesser insanities which we call hysteria, were treated with punishment.

It was convenient to delegate many of these matters to the Treasurer and Matron. The power entrusted chiefly to the Treasurer was bit by bit enlarged, so that down nearly, if not quite, to our time this official became a despot. In the Order of the Hospitals, 1557,[1] the Treasurer's charge is acknowledged to be one of much pain and "attendance." He may supersede the physician and surgeon in many particulars of their special office; certain malefactors are brought before him, and with the aid of one almoner he may examine, commit to prison, reprove, banish, put to labour, or being "diseased" may admit to the hospital. Here we see the *fons et origo* of the Treasurer's office, and can traditionally account for the hankering after the punitive which still remains. The late case would have been but an instance of old legal custom, and the tone of the old power is manifested when the Treasurer excuses the nurse in that it was but an error of judgment, which unhappily ended in death. These errors in judgment must, however, frequently recur in connexion with punitive treatment, or what may amount to nearly the same, treatment without the intelligent and responsible supervision of the doctor. Guy's has been officially noted as the place in which mischief was likely to appear. The Charity Commissioners, in their Thirty-Second Report (part vi., p. 780), say of Guy's: "One most important subject yet remains to be noticed—namely, the absolute and uncontrolled authority which is practically enjoyed by the present Treasurer (1840) in every department of the charity. Not only is the administration of the hospital in the management of the funds entirely in his hands, but the nomination of Governors seems mainly to rest with him. . . . . Entire control of the Medical School is with him, in his private and individual capacity. He names the lecturers, exercises a sovereign and irresponsible authority. So large a concession appears to be unjustifiable." They also say that "much confusion and injury may be anticipated as the result of the system." This is signed, "Samuel Smith and Francis Offley Martin, Charity Commissioners."[2] One of the greatest of Guy's modern teachers, James Blundell, notes as the root of the evil which existed then, as now, that "the hospital schools are governed by men not intended for the office, and seldom adequately prepared for so important a trust." Although in some few particulars changes may have been made since 1840, the office is in the main managed as ever. The late Treasurer of Guy's acted, as he owned, upon his own personal responsibility, and used the hospital nurses in a case of quasi-medical police—that of the Welsh fasting girl Jacobs;[3] and the doings of the present Treasurer, introducing vital changes in the management of patients, without even the knowledge, much less the approbation, of the medical staff, prove that the office is as irresponsible as ever. I do not so much blame any personal Treasurer as I do the vicious system of giving such peculiar authority to a man destitute of medical knowledge. When the treatment of disease was quackish, astrological, and what not, and when the patients were not unfrequently of the scum of society, it might have been necessary; but now that these institutions are worked by men of the highest qualifications, by men fitted to grace the highest intellectual circles, and now that the practice of medicine and surgery has become a science, it is a barbarism to continue in the same way.

And now to the remedy. In the action at law *re* St. Thomas's Hospital, 1862, the Chancellor who tried the case acknowledged, as did the Attorney-General, that the parishes had an interest in the honest and judicious management of the great charitable institutions established in their midst exclusively for the sick and suffering poor, and that they therefore had a *locus standi*. Now, these doings at Guy's call for prompt and energetic action; the parishes may well take action once more. I do not think for a moment that the Charity Commissioners are equal to this work. It must, I think, be done by a Committee of the House of Commons; as the case lies in a nutshell, two or three days might suffice for a report. The evil and the results are of a magnitude enough to justify this course. It is for the South London parishes by their boards and vestries to petition for inquiry; action in this way in at least one parish is already promised, and the members for the borough would be glad to help. Even if the House has no time for this now, the demonstration would be of service against next session. The remedy would seem to be the abolition of the office of Treasurer, or of any government, directly or indirectly, by any one man, and to appoint a real, working, openly responsible committee of management, on which committee the medical staff must be adequately and efficiently represented. Perhaps the local governing bodies might once in three years appoint, say one suitable person for each borough, in one case Southwark and Lambeth to be *ex officio* on this acting committee, or to be among the acting governors, and under these an efficient secretary under the entire control of the committee, to give effect to their management.

I remain, Sir, yours, &c.,

WILLIAM RENDLE, F.R.C.S.,
Chairman of the Committee of South London Parishes, *re* St. Thomas's Hospital in 1862-3.

Polperro, Cornwall, August 23rd, 1880.

[1] Memoranda relating to the Royal Hospitals. Reprint, 1836.
[2] Reasons for Retiring, p. 21. [3] THE LANCET.

TREATMENT OF CANCER.

To the Editor of THE LANCET.

SIR,—At present, when the profession are in expectation of getting a cure for this frightful disease, it has seemed to me advisable to call attention to a remedy which used to be in great vogue, but which has most unaccountably fallen into disuse. There is nothing indeed in medicine more remarkable than the fact of the way in which medicines, patent medicines too, are forgotten or thrown aside. Into the causes of this I am not now going to enter, but simply to state a well-known fact. The medicine I would now recall to notice, through your widely read pages, is the well known hemlock; and in saying this I am well aware of Harley's most valuable observations on this very drug. But it is as a remedy for cancer, in some at least of its forms, that I would here speak of it. Now, Sir, the evidence of the power of this medicine over cases of cancerous disease is very great indeed; and that man would do well to the profession who would simply make out a list of the cases where it has been so employed. Not that every case was bettered by its use, for this is not to be looked for, but that the majority were. It will be observed that I use the word "bettered;" as if I said "cured" it would be at once concluded what I advanced would not be worthy of a moment's consideration: though certainly there are plenty of cases in which a complete cure was effected; and this in cases of both what seemed open and occult cancer.

This evidence, it appears to me, seems quite sufficient to authorise us to fall back on the remedy.

It has been objected to the use of hemlock that its preparations are uncertain, and do not contain the active principle.

Granting that this is true, in a degree, it is certainly no reason for giving up its use. But I think that, with such a formidable disease as cancer, it would be well to use the hemlock which grows in other climates than Great Britain; for there can be no doubt that it is a much more vigorous plant abroad than amongst ourselves; and indeed the parties who first introduced it in Germany enter into particulars as to the locality in which it grows, the time of the year it is to be plucked, which prove their opinions on the matter.

The dose of the drug in common use, I may state once for all, is too small. The British Pharmacopœia puts down the dose of the extract at from two to six grains, which is totally useless. To an adult not less than ten grains may be given; and I find a very suitable way of giving it is in an eight-ounce mixture, of which half an ounce, by measure, may be taken three times a day, each dose containing ten grains, which can be readily increased, and which will be needed in such a disease as cancer, for the dose must be pushed so as to produce its physiological effects. I speak specially of the extract as, on the whole, presenting the easiest mode of administration. It is not equal, I am aware, to the succus conii either in elegance or power; but the latter has very serious drawbacks, one being its expense, and the other the quantity of spirit which it contains. Used in the way indicated, I have found hemlock a very valuable remedy. In my hands it seems to possess two distinct effects, the first being the power of allaying pain, a matter of so much moment in cancerous disease; and the second, its restorative power on the frame, as shown by the change in the appearance of the patient; and, should there be an open ulcer, the alteration for the better in the sore. I have seen no absolute cure of cancerous disease, but I have seen several cases where the disease has been beyond question kept at bay, and the life of the patient by so much bettered.

More, Sir, could be said on this remedy, but enough I consider has been advanced to call the attention of the profession to what appears a very important subject by,

Yours truly,

Dublin. HENRY KENNEDY, M.B.

ENTERIC FEVER IN TROPICAL CLIMATES.

To the Editor of THE LANCET.

SIR,—Kindly permit me to answer as briefly as possible the questions put by Surgeon-General Gordon in his commentary on my letter of the 31st ult.

He asks, "What is the precise sense in which the term 'enteric' is applied by the writer of that letter to the fever in India, which he describes?" In answer to this I would say that the "enteric" fever which I have observed and treated in India is "a definite disease, always recognisable after death in fatal cases by the pathological changes proper to it." This is, as it will be seen, a quotation from my own letter, in which I regarded it as an axiom that "enteric fever" (using that term as the synonym of the "typhus abdominalis" of the German school) exists in India as a specific disease, distinguished from all others by the pathological changes going on in the intestine, just as it does in temperate climates. This, however—which I must regard as a necessary premiss—Dr. Gordon would seem to deny, inasmuch as in commenting on another portion of my letter he says, "So far as the extracts from authorities and writers given in my reports justify a conclusion, that conclusion is that in fatal cases of fever due to *pythogenic* causes there are no post-mortem appearances of a nature beyond such as exist in fatal cases of non-specific fevers due to endemic and climatorial causes in India; also that appearances undistinguishable from them occur in other diseases than fever, and as results of certain poisons." This, it appears to me, amounts to saying that there is no such disease as I describe occurring in India recognisable and capable of differentiation from all other diseases by the pathological changes found in the small intestine after death, which disease is known all over the world as "enteric fever," "abdominal typhus," or "typhoid fever." If this be the opinion of Surgeon-General Gordon, it is evident that, denying, as he does, my premisses, he will not be likely to allow my conclusions. I confess, however, that I was not aware that there were any longer doubts as to the disease which is known as "enteric fever" being pathologically as perfectly distinct in India as it is in temperate climates, nor can I understand how the position is tenable. The question, however, with which I attempted to deal was not the identity of the disease as it is observed in India and elsewhere, but, assuming such identity, to consider the question of causation. "Enteric fever" being "enteric fever," does it arise in India from climatorial causes, or is it essentially "pythogenic" in its nature? My arguments and conclusions on this point need not be repeated.

On one other point only need I touch—that is, the question of temperature as a means of diagnosis between "enteric" and "remittent" fevers. In a short paper which I communicated to the *Indian Medical Gazette* in 1877 I entered more fully into this point, upon which, in spite of Surgeon-General Gordon's criticism, I still repose the greatest confidence. I have not, unfortunately, a copy of the paper I refer to at hand.

The principal practical point is this: Given a patient who comes under our notice in the *first two days* of his illness, we can, by taking his temperature carefully night and morning, predict with almost absolute certainty, in uncomplicated cases, whether we are likely to have a case of "remittent fever"—that is, a fever of climatic origin—to deal with, or a case of "enteric." The value of this knowledge to the physician in the treatment of the disease cannot be over-estimated.

In conclusion, I trust that Surgeon-General Gordon will not consider that I offer this answer to his criticism of my letter in any dogmatic spirit. The subject is one of vast importance, and cannot be too freely discussed.

I am, Sir, yours faithfully,

Dublin, Aug. 15th. GEO. S. RANKING, M.D. Cantab.

To the Editor of THE LANCET.

SIR,—Reading your number of Jan. 3rd, I met an article of Sir J. Fayrer, M.D., on typhoid fever in tropical climates. As he wants the experience of physicians living in this climate, I take the liberty of troubling you with a few lines on the subject.

This town is situated inside of the tropical line of the south, and is two degrees south of Rio de Janeiro, Brazil. Here I have observed, in a year, nine cases of typhoid fever in persons from twelve to thirty-five years of age—five males and four females (eight white and one mulatto).

They all had fever from twenty-one to twenty-five days. Most of them had epistaxis, and one almost died from its severity. They had diarrhœa, some from the first, others from the seventh day, and more than half had severe intestinal hæmorrhage, requiring the energetic use of astringents.

There are physicians here who deny the existence of typhoid in this country, but I have seen many cases of this fever in the hospitals in Paris, London, and in the United States, and I find no difference between the fever treated there as typhoid and the cases I have seen here among the natives of this country.

The duration of the fever (twenty-one to twenty-five days), the general appearance of the patients, the epistaxis, the rose-coloured spots on the abdomen, the tenderness and gurgling in the right iliac fossa, the dryness of the tongue, the deafness, muscular pains, circumscribed flush on the face, sordes on the teeth, dryness of skin, pulse 100 to 120, debility, somnolence, mental confusion, and other symptoms resemble the typhoid fever of the countries north of the tropical line.

I am sorry in not being able to furnish the thermometric observations of these cases, for the patients were country people, living in farms, where it is impossible to keep daily observations of the patients, but I can assure you that from the fourteenth day the temperature generally fell.

In none of these cases did I give a grain of quinine. In the first stage, when the fever is high, I give ordinarily small doses of nitrate of potash, and in the last stage preparations of bark, alcoholic stimulants, Todd's solution, and externally linseed poultices and turpentine fomentations. No purgative is given, except in the first five days, when there is constipation. I do not allow any solid food, but give milk, beef-tea, coffee in small doses and frequently. Out of the nine patients I observed last month and part of this, eight are living, and well, and one died thirty-six days

after recovery, from eating cheese and a large piece of beef, probably producing intestinal perforation.

These cases are observed here in the last part of summer, which in Brazil ends in March and April.

I cannot give the precise cause of the fever here, but attribute it to decomposition of organic substances in some cases.

Two of the cases I treated were nurses who attended my typhoid patients and fell in sickness after their recovery. Most of them were living in isolated farms, where typhoid was never observed before, though Dr. Budd believed that this fever only originated from the stools of individuals affected with the fever.[1]

The typhoid or enteric fever described by Murchison, Tanner, Niemeyer, Trousseau, Flint, Wood, and other European and American writers, and the cases I have observed here, are very similar.

I have no doubt they are cases of typhoid, and the treatment I use having produced good results, proves the correctness of my diagnosis.

I am, Sir, yours faithfully,

G. PIZA ALMEIDA, M.D.

Itatiba, Province of Sao Paulo, Brazil, March 20th, 1880.

PRELIMINARY EDUCATION.

To the Editor of THE LANCET.

SIR,—Although, as you have pointed out, elementary medical education is not a fit subject for interminable revision by the Medical Council, it is still a fit subject for continued discussion by the profession in general. Holding this opinion, I venture to express my views with regard to the subjects best suited for the preliminary examinations. If we consider the great amount of biological and physiological knowledge acquired in recent times, the importance and extent of our gains in various departments of science, the clear conceptions of force and energy which may now be commanded; if further we consider the importance of all these to a reflective practitioner, we should hesitate to debar him from attaining them by compelling him to useless toil. Of what possible use to him can be a smattering of Greek or Latin? Is it to be supposed for a moment that elegance of address or refinements of speech or thought entangle themselves in the pages of a Latin or Greek grammar; that a laborious effort to read the Anabasis of Xenophon gives him the culture which is supposed so needful? Could he even read the plays of Sophocles, might he not gain more from the dramas of Shakespeare? from his lyrics than from the Choral Odes of the older poet? Is there any prose literature to compare with our own? But, surely, if he acquires foreign languages at all they should be the modern German and French, so that he may be able to read their scientific works and make himself familiar with contemporary thought.

It is hardly too much to say that to compel a student entering on his medical career to obtain an imperfect acquaintance with the ancient languages, aware that what he has learned will forthwith be forgotten, is to give him an aversion to labour which will most likely spoil the earlier years of his work, and will certainly start him on a false method of gaining knowledge.

It seems to me that false conceptions exist as to "culture," and that "culture," as understood at present, is somewhat contemptible. The culture that a man wants is that which will enable him at least to understand the main advances in his profession, and, if it is in him, to give his aid to them.

Insight into character, sympathy of nature, and refinement are, in the main, neither acquired nor acquirable by any polishing machine. What we want in these times is that men entering the profession should be more or less familiar with "the new learning" of our time. They should know their own language and German and French sufficiently well to read works in these languages. They should also know the facts which will come prominently before them in chemistry, mechanics, dynamics, hydro-mechanics, electricity, heat, and sound, and such knowledge should be limited, practical, and thorough. In the same way they should know something of biology and physiology in a practical sense as a preparation for their after-study on a large scale.

A new world is springing up around us. The heroism and poetry of our time is scientific. In *Lebenafluthen im Thatensturm* the greatest minds are tracking the path of the *Erdgheist*. The intellectual national life is everywhere pressing forward more strongly to further knowledge of the material world and its wonders. Here lies our modern El Dorado. In this movement the medical profession must share largely. The fundamental facts of living protoplasm and the various stages of living matter illustrate themselves in the body of man. The interdependence of the animal functions in general, and of the mental processes in particular, with the nervous system, is receiving and demanding a closer and more extensive study. The applications of heat and electricity to health and disease necessitate some knowledge of these sciences. Illustrations might be indefinitely multiplied. But inasmuch as it is of equal, if not of greater, importance that a man should begin his life study comparatively fresh, able, and willing to work, the amount of these various sciences taught should be only what is essential. What we want is not barren discussions about the exclusion or retention of Greek or Latin, which must soon disappear, but an effort to arrange the essentials of scientific knowledge, disencumbered of unnecessary detail, so that they may readily come within the range of schools and the reach of young men about to enter the medical profession.

I am, Sir, yours obediently,

J. NIVEN, M.B.,

Deptford Hospital. Fellow of Queen's College, Cambridge.

*** In accordance with our motto, we print the above letter, though, as our correspondent will see by reference to another column, our views differ somewhat from those he has here advanced.—ED. L.

"A CHEMICAL LUNG."

To the Editor of THE LANCET.

SIR,—As you thought my suggestion for purifying collections of foul air by chemical means worthy of notice in THE LANCET, perhaps a more detailed account of the scheme may not be unacceptable. Caustic alkalies are well-known to possess great affinities for carbonic acid and sulphur gases. In the case of the Underground Railway I propose to add a special chamber to each train—say a disused third-class carriage, open at each end, and so constructed that, by the aid of wings and 'chutes, it shall occupy as large a sectional area of the tunnel as is possible. Trays carrying caustic lime, kept moist by a tank of water on the roof or otherwise, occupy the whole interior space of the carriage, which may be placed either at the rear of the train or next the engine. Instead of trays carrying the alkali, in a solid or semi-solid form, sheets of canvas or other suitable material may occupy their place, and, by means of a reservoir of caustic soda above, be constantly kept wet, the surplus fluid being collected in a lower tank, whence an automatic pump, connected with the wheel of the chamber, pumps it up, to fall again through the sheets. Charcoal stacks may take the place of the sheets; the stacks made in frames easily handled, of fine branches arranged in crossed tiers, and kept constantly wet, as in the case of the canvas sheets. Again, a series of water-wheels, constructed of canvas or other suitable material, with rims dipping into a lower tank of caustic soda, and so formed as to carry up the fluid and pour it over their surfaces, the current of air as it rushes through the chamber sufficing to cause the wheels to revolve, and so to expose a surface, constantly wet with the chemicals, to the action of the air; and when the train passes into the open the wheels may be skidded, and so unnecessary waste of chemicals be avoided.

If a special carriage be considered impracticable, as some think, then an exhausting fan may drive the gases of the smoke box direct into a tank filled with the chemical solution, and the carbonic oxide which will issue, freed from other gases, may be converted into carbonic acid, either by causing it to pass through a tube under the ashpan of the furnace or else over a spirit or gas flame; or, again, electricity, evolved either by the friction of the train or by a special battery, may be called into requisition for the same purpose—viz., the conversion of the carbonic oxide into carbonic acid.

A punkah, constructed upon chemical principles, will, I

[1] It was perfectly well known to Dr. William Budd that nurses, or even medical men, in attendance on typhoid patients, might contract the disease in removing or inspecting the stools, and, having contracted, spread it, without being themselves attacked with fever, although probably suffering from slight *malaise*.—ED. L.

think, be found most useful in sick chambers, small rooms, and offices, and, if sufficiently large, at the stations of the Underground Railway, should it be necessary to purify the large volume of air that will not enter the chamber after it emerges from the tunnels. An eminent firm in London is constructing these punkahs, and hope soon to have them on public view. In theatres and other large buildings it is proposed to have one or more intakes in the roof, or elsewhere, connected by hose or tubes, with a sufficiently powerful exhausting fan in the basement of the building; the foul air from above is then driven through a tank, or other form of chemical lung, and allowed to escape and find its way back again to the upper part of the building, being cooled, if need be, or oxygen added if desirable. The application of this principle to the purification of the air in Turkish baths, and also to destroy any noxious gases emanating from cremation furnaces, is self-evident. Many have been the views taken of each individual portion of the scheme; experience alone can test its strong and weak points. As regards the Underground Railway, a few hours would be sufficient to form a decided opinion; with a single lung, the air, on entrance and exit, being analysed, would at once show the amount of foul gases passing through and destroyed in a given time and space. The necessary amount of alkali per train could then be easily calculated.

I am, Sir, yours, &c.,
RICHARD NEALE, M.D. Lond.

Boundary-road, S. Hampstead, Aug. 21st, 1880.

"INFLAMMATORY AFFECTIONS OF THE JOINTS IN CHILDHOOD."

To the Editor of THE LANCET.

SIR,—In a clinical lecture by Mr. Howard Marsh, on "The Treatment of Chronic Inflammatory Affections of the Joints in Childhood, with especial reference to Excision," which appeared in THE LANCET of July 31st, he points out in a very able manner the advantages of the treatment by rest and the use of leather splints, in which I entirely agree with him. He says, however, that many cases come under his notice of deformity as the result of other forms of treatment, and he asks the question: "Is surgery unequal to the treatment of these distorted joints—are not these just the cases for excision?" and in answering this question he says: "I grant these, if any, are the cases for which excision is appropriate;" cases, that is, in which there is little or no disease, but much distortion. But the point is that you excise a joint not because it is the seat of incurable disease, but because it has been allowed to get out of shape. Prevent the deformity and the necessity for excision vanishes."

Now, in this I venture to think Mr. Marsh is in error, and the question should rather be answered thus:—Very many of these cases of deformity for which, in Mr. Marsh's opinion, excision is appropriate, and especially those affecting the knee and ankle, can be rectified by gradual extension after tenotomy, sometimes with a stiff joint, and in other cases with more or less motion, according to the extent of the original disease. From the number of contracted joints that have come under my notice, and which have been successfully treated by this method, I infer that the value of this mode of treatment is not sufficiently recognised.

I am, Sir, yours faithfully,
HENRY F. BAKER.

Hanover-square, August 3rd, 1880.

LEATHER STRAPS v. BANDAGES.

To the Editor of THE LANCET.

SIR,—The liability of bandages and slings, when required to bear any strain to stretch and ruck, must be generally recognised. This disadvantage is particularly noticeable when treating a fracture of the clavicle or acromion process. Mr. G. Cardy Edwards of Ipswich, fifty years ago, met this disadvantage in fracture of the clavicle by the use of a couple of round leather straps, with an oval pad with a buckle on it at one end, and holes at the other. These straps he applied as an ordinary figure-of-eight bandage, either pad being in front of either shoulder. The coolness, comfort, and firmness of these clavicle straps have induced me to keep and use them for the past twenty years.

Last winter the horse of the whip to the Duke of Hamilton's harriers, while galloping across a ploughed field, placed its feet into a water furrow, threw the whip, and, in rolling over, struck his acromion with the edge of the back of the saddle and fractured it. I put it up in the ordinary way, with sling, pad, and bandage. At the end of forty-eight hours I was dissatisfied with its firmness, and thought possibly the frequency of fibrous union in these fractures might be due to the difficulty of keeping the ends in perfect apposition. I discarded the sling and bandage, and used the clavicle straps. One pad I placed under the elbow, and the other on the proximal side of the fractured acromion, and tightened the straps till the ends of the fracture were in perfect position. I had put a second buckle on the acromion pad, to which I fastened one end of a round leather strap, and carried it across the back, under the arm, and up in front of the chest, and fixed the end in the same buckle. The ordinary pad and the arm were kept to the side by another strap round the chest. Everything kept in perfect position. The clavicle straps brought the ends of the fracture quite close, and the second strap from the acromial pad made him, as he expressed it, "feel quite whole."

The coolness, firmness, and sense of security given by the leather straps, I think, ought to lead to the sling and bandage being discarded in their favour.

I am, Sir, your obedient servant,
GEO. E. JEAFFRESON.

Framlingham, Aug., 1880.

CASE OF COIN-SWALLOWING.

To the Editor of THE LANCET.

SIR,—Perhaps you may think it worth while to publish the following case as exemplifying the treatment alluded to in your number of July 31st, in a case of a child swallowing the tongue of a bell:—

A man, aged fifty-one, of rather irregular habits, swallowed three sovereigns at a gulp for the wager of a pot of beer. The next morning, being in a more thoughtful frame of mind, he consulted me as to what was best to be done, feeling apprehensive as to the result of the previous evening's folly. I directed him to eat as much solid food as possible, avoiding superfluous fluids. The fear of impending mischief seemed to stimulate his appetite, for he carried out my advice in a wonderful manner. In twenty-four hours he was rewarded by hearing the merry chink of his three sovereigns once again in his pocket. He had holes bored in his coins; one he wears appended to his watch-chain, perhaps to remind him of his foolhardihood, another he presented to a friend, who wears it in the same way, and the other was, I believe, exchanged to the loser of the wager for one which had not passed through the same unusual experiences.

I have frequently had occasion to advise eating, to the *full*, solid food in cases where foreign substances have been swallowed, and I cannot call to mind a single instance in which such treatment, when adopted immediately, failed to carry off the offending body. Although I have never seen an instance of fatal termination in any such cases where purgatives have been at once administered, I do know of some where prolonged anxiety and pain have been occasioned by such treatment, notably in the case of a woman who swallowed a date stone, and hoped to rid herself of it by immediately taking a dose of castor oil. This patient suffered considerable pain about the neighbourhood of the duodenum, striking through to the back, increased after eating, and sometimes accompanied with great anxiety and some feverishness. This condition lasted for many weeks, and only subsided very gradually.

Faithfully yours,
JAMES WORTHINGTON,
Surgeon to Lowestoft Hospital.

July 31st, 1880.

PARIS.

(*From our own Correspondent.*)

THE pestilential smells which have infested Paris for some time are awakening a feeling of indignation against the responsible authorities, which is expressed freely in the daily papers, and that quite independent of party spirit. A few days since, the well known critic, Francisque Sarcey, devoted an article to this matter in the *Dix-Neuvième Siècle*, and

invited the inhabitants of his district to sign the petition in preparation against the nuisance; and the *Figaro* of to-day prefaces some satirical remarks by the statement that "Paris est en ce moment infecté par les odeurs les plus épouvantables. Tous les égouts sont à découvert." The odours, which in reality emanate, as was stated in a previous letter, from the night-soil *depotoirs* which surround the city, and also from the carts and boats which convey the sewage outside the walls, are due to the neglect of the contractors in the use of disinfecting measures, and there seems to be no doubt about the connivance of the police at this abuse. M. Sales Roche, one of the most energetic of the municipal councillors in sanitary matters, has written a letter to the Prefect of Police announcing his intention of questioning him upon the subject when the Council resumes its sittings. He states that the day after the discussion, which took place about a month ago, the air of Paris was pure and respirable; but as soon as the holidays commenced, the smells made their reappearance worse than ever. "We cannot all," says M. Roche, "go to the seaside. Many, after a hard day's work, wish for a breath of fresh air in their evening walk. But at this hour the town is 'empoisoned.' Your administration has tolerated for months an abuse which would not be suffered for the space of twenty-four hours in the most obscure village in France." The *Petite République Française* thinks that the only remedy lies in the suppression of the bureaux, which are fallaciously called "sanitary," or "hygienic," and which cover the responsibility of the Prefect by a semblance of official sanction, which, as a matter of fact, they cannot withhold.

An operation of considerable interest was recently performed at the Beaujon Hospital by M. Tillaux. A man, aged thirty-one, had enjoyed good health until the 25th of last May, when he was suddenly seized with the most violent pain in the abdominal region. In spite of all treatment the pain continued; and after suffering for some days the patient applied to the out-patient department of the Lariboisière Hospital, where it was found that he had a tumour, which was supposed to be a floating kidney. For more than a fortnight he remained without any further advice, having intermittent attacks of pain, which lasted for some time, unable to eat or lie down without provoking an attack, and obliged to sit doubled up with chin on his knees. He then consulted Dr. Millard, physician to Beaujon, for his "floating kidney," who admitted him into the hospital for this affection, changing, however, the diagnosis after a time to that of chronic intestinal invagination. Continuous currents and rectal douches were tried for a time without any result, and finally, at the urgent request of the patient, it was determined to perform the operation of gastrostomy. The abdomen wall was incised by M. Tillaux with strict antiseptic (Listerian) precautions, and the hand being introduced into the cavity, a tumour the size of the head of a fœtus was discovered, springing from the mesentery. An exploratory puncture giving no information as to its nature, it was freely incised, and found to consist of a cyst filled with caseous matter. The pedicle having been tied with catgut, the tumour was removed, and the stump returned after being washed with a strong solution of carbolic acid. Two days later there were threatening symptoms of peritonitis, but these passed off, and a perfect recovery ensued. The growth turned out to be a cyst which had developed in one of the mesenteric ganglia.

Paris, August 25th.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, the 19th inst., the following papers were laid upon the table by the Clerk of the House:—Abstracts of the quinquennial returns of sickness and mortality experienced by Friendly Societies for the periods between 1855 and 1875; and abstracts of accounts for 1879 of English and Welsh county and borough lunatic asylums.—Mr. John Talbot gave notice of a question with regard to the drainage of that part of Westminster in which the public offices are situate.

On Monday, in reply to Mr. A. O'Connor, Mr. Mundella stated that the Crown nominees on the Medical Council were appointed by Her Majesty in Council, for a term not exceeding five years, in accordance with the provisions of the Medical Act of 1858. Section 8 of that Act provided that any person so nominated might at any time resign his appointment by letter addressed to the President of the Medical Council.

On Tuesday the statistical report of the health of the navy for the year 1879 was presented. The following notice was given for next week:—Mr. Firth,—"To ask the Under Secretary of State for the Home Department whether he is aware that during the month of July last the Fishmongers' Company ordered the destruction of more than ninety tons of fish as being unfit for human food; that this loss was mainly due to the utter inadequacy of the fish market accommodation in London. Whether he is aware that such inadequacy arises from the fact that no new market can be established within seven miles of the City of London without the consent of the Corporation of London, and that the Corporation claim to prevent and have repeatedly prevented such establishment. And whether, having regard to the fact that this claim is founded upon charters granted at a time when the limits of the metropolis were co-terminous with the City, the Government are prepared to advise the cancellation of such charters and to support any measure introduced by the Metropolitan Board of Works, or other responsible authority or persons, for the establishment in London of markets for the people."

On Thursday, in reply to Mr. Beresford Hope (on behalf of Mr. Talbot), Mr. Adam said his attention had been called to an article in the *Builder*, in the heading of which some reference was made to the Government offices, but the article itself dealt with the main drainage system of Whitehall and Westminster. That was not under the jurisdiction of the First Commissioner of Works, and any application on the subject should be made to the Metropolitan Board.

Obituary.

PROFESSOR DR. FERDINAND R. v. HEBRA.

WE briefly chronicled in our columns lately the loss the Vienna School of Medicine had sustained in the death of Dr. Ferdinand R. v. Hebra, a professor whose fame was recognised throughout the civilised world. The death of one who exercised such influence on the branch of medicine which he made his specialty should not be allowed to pass without a record of his personal career, or an attempt to define the position he held in dermatology.

Hebra was born on the 7th September, 1816, at Brünn, and acquired his medical education at Vienna, where he obtained his doctor's degree in 1841. For awhile he turned his attention more particularly to surgery, but, before long, devoted himself to medicine under the illustrious Skoda, in whose department skin diseases were included, but without any effort at specialisation or organised treatment. Feeling strongly the unsatisfactory condition of this branch of medicine in Germany, both as regards its scientific position and the way it was taught, and recognising in Hebra an ability thoroughly fitted by its acuteness and zeal to deal with the subject, Skoda induced him to enter on the study of diseases of the skin; and the result was, in 1842 (the year of issue of the first edition of Erasmus Wilson's large work), the delivery of a private course of lectures by Hebra, which attracted considerable attention. The first step gained, his next object was to induce the authorities to found a special department for skin diseases. This, after much opposition, and chiefly by the influence of Skoda, he succeeded in achieving, thus enabling him to command ample material for his subsequent labours, as well as drawing a large number of students, by his masterly exposition of an intricate and ill-understood subject.

At this time, through the labours of Alibert, Biett, Gibert, Cazenave, Schedel, and Rayer, the Hôpital St. Louis in Paris was really the only School of Dermatology, and the influence of its professors was paramount. To appreciate Hebra's influence, it is also necessary to understand that at this time there was much disagreement on fundamental points between French and English writers; the nomenclature had grown intolerably cumbrous and unintelligible, and the whole study, notwithstanding Willan's great work and the fruitful and valuable labours of many French observers, was in a most unsatisfactory condition. As Hebra laboured on through the succeeding years he gradually tested all that had been previously written by means of his own

abundant material and accurate observation and comparison, sifting the wheat from the chaff, till he placed dermatology on a thoroughly scientific basis, and established sufficient facts to form a sure foundation for the labours of succeeding observers. He also did good work in simplifying the nomenclature, and classified skin diseases in accordance with the views of his colleague Rokitansky on an anatomico-pathological basis. Meanwhile, the extremely logical character of his writings, and his lucidity and capacity as a teacher, were widely extending his reputation, and increasing crowds of students from all lands attended his clinique in the rising Dermatological School of Vienna in preference to the celebrated Hôpital St. Louis. From America especially great numbers constantly attended his lectures, and Hebra's influence in stimulating research amongst his pupils and placing the study of skin diseases in its present position in that country is very remarkable.

In addition to his lecturing and teaching capacity, the quality of his writings, his influence in the extension of knowledge, his scientific reorganisation and simplification of the subject, and the foundation of a great school, which has eclipsed all others, we should mention the masterly way in which he observed several affections hitherto unrecognised as possessing special features, his endeavour to encourage the pathological study of dermatology, and the additions he made to our resources for the local treatment of disease, in the way of baths, caustics, soaps, and so on.

Although Hebra recorded the results of his incessant labours from time to time on a great variety of dermatological subjects, his greatest work is that on "Diseases of the Skin," translated by the Sydenham Society. He also published a well-known Atlas of Skin Diseases, and wrote the chapters on the Special Pathology and Therapeutics of Skin Diseases in Virchow's Handbook, besides editing for ten years the Proceedings of the Medical Society of Vienna.

For many years the professor enjoyed an enormous practice, for his fame attracted patients from afar, and his literary labours had been lightened by the eminent services of Professor Kaposi, who assisted him with the later volumes of his great work. Hebra's health had for some time been failing, and awaiting his end with much resignation, he died, full of honours bestowed by the medical profession in Vienna and by the Imperial Government, on August 5th, leaving a widow and five children. The eldest of his three sons is the well-known writer on skin diseases in Vienna, Hans Hebra, and one of his daughters is married to Professor Moriz Kaposi. The admiration felt for his talents and services to science, and the reverence with which he was regarded by his pupils and colleagues, were shown on more than one occasion during his lifetime, and at his funeral, which he desired to be very quiet, there was a large and respectful gathering to pay a last tribute to the memory of the illustrious professor.

Medical News.

UNIVERSITY OF LONDON. — The following candidates have passed the recent First B.Sc. and Preliminary M.B. (conjoint) Examination for Honours in the subjects indicated :—

CHEMISTRY.

FIRST CLASS.

Stroud, Wm., First B.Sc. (Exhibition), Owens College.
*Gee, Wm. Wilson Haldane, First B.Sc., Owens College.
*Roberts, Thomas, First B.Sc., Birmingham and Midland Institute and private tuition.

SECOND CLASS.

Ledlie, Wm., First B.Sc., Christ's College, Cambridge.
Beverley, Richard Joseph, First B.Sc., private study.
Kensington, Arthur Hayes, First B.Sc., Royal School of Mines and University College.

THIRD CLASS.

Irwin, Wilfred, First B.Sc., Owens Coll. and priv. study.
Hart, Herbert Wheatley, Prel. Sci., Westminster and Guy's and Birkbeck Institute.
Fison, Alfred Henry, First B.Sc., Royal School of Mines.
Read, Alfred John, B.A., First B.Sc., Univ. of Edinburgh.
Edmunds, Percy Jas., Prel. Sci., University College.
McCabe, W. Alex. Bowes, Prel. Sci., University College and Victoria Coll. Jersey.
Walmsley, Robt. Mullineux, First B.Sc., private study.
Fowler, Alfred Henderson, Prel. Sci., Guy's Hospital.
Eliçart, Arnold, First B.Sc., private tuition.
Andrews, Edw. Collingwood, Prel. Sci., University College.
Snape, Henry Lloyd, First B.Sc., Owens College.
Cave, Edward John, Prel. Sci., St. Barthol. Hospital.
Macartney, Ed. Kendrick, Prel. Sci., University College.
Walker, Thos. Hollis, First B.Sc., Epsom College.
Thompson, Francis Clement, First B.Sc., private study.
Kimmins, Chas. Wm., First B.Sc., Owens College.
Eves, Florence Elizabeth, First B.Sc., Newnham Hall, Cambridge.
Todhunter, Wm. Alfred, B.A., First B.Sc., private study and tuition.
Anderson, G. Elliott Caldwell, Prel. Sci., South African College and Guy's Hospital.
Wallace, Robt., First B.Sc., private study and tuition.

EXPERIMENTAL PHYSICS.

FIRST CLASS.

Turner, H. H., First B.Sc., Arnott Exhibition and Medal, Trinity College, Cambridge.
Stroud, Wm., First B.Sc., Arnott Medal, Owens College.

SECOND CLASS.

Edmunds, Percy Jas., Prel. Sci., University College.
Sutherland, William, First B.Sc., University College and private study.
Innes, Chas. Barclay, Prel. Sci., University College.

THIRD CLASS.

Allen, Henry, Prel. Sci., private study.
Gee, Wm. Winson Haldane, First B.Sc., Owens College.
Catchpool, Ed., First B.Sc., Roy. Polytechnic Institution.
Ledlie, Wm., First B.Sc., Christ's College, Cambridge.
Cave, Edw. John, Prel. Sci., St. Barthol. Hospital.

BOTANY.

SECOND CLASS.

Eves, Florence Elizabeth, First B.Sc., Newnham Hall, Cambridge.
Pearson, James, Prel., Sci., University College.

THIRD CLASS.

Brock, Jas. Harry Ernest, Prel. Sci., University College.
Earle, Walter Geo., Prel. Sci., University College.
Freeland, Freeland John, Prel. Sci., King's College.

ZOOLOGY.

FIRST CLASS.

Spencer, W. Baldwin, Prel. Sci. (Exhibition), Old Trafford School and Owens College.
*Jones, Samuel Cromwell, Prel. Sci., University College.

SECOND CLASS.

Eq. { Brock, Jas. H. Ernest, Prel. Sci., University College.
Eq. { Thane, Edgar Herbert, Prel. Sci., University College.
Adami, John Geo., Prel. Sci., Old Trafford School and Owens College.

THIRD CLASS.

Arkle, Chas. Joseph, Prel. Sci., University College.
Eq. { Chapman, Harry Cecil, Prel. Sci., St. Barth. Hosp. and Royal School of Mines.
Eq. { Edmunds, Percy Jas., Prel. Sci., University College.

* Obtained the number of marks qualifying for the Exhibition or Prize.

BRITISH MEDICAL SERVICE. — The following is a list of the candidates for appointments as Surgeons in the above Service who were successful at the competitive examination in London on Aug. 9th :—

	Marks.		Marks.
S. A. Crick	2510	L. W. Swabey	1610
J. R. Dodd	2240	R. Haselden	1605
A. J. Struthers	2230	R. E. Ricketts-Morse	1600
G. E. Twiss	2230	W. J. B. Lyons	1590
R. F. Adams	2225	W. Rowney	1588
C. G. D. Mosse	2135	T. J. R. Lucas	1585
A. B. Cottell	2075	C. J. Addison	1560
T. Archer	2065	A. G. Kay	1560
S. G. Hamilton	2035	W. W. Pope	1560
H. J. R. Moberly	1990	R. Porter	1560
A. P. Hart	1955	R. C. K. Laffan	1555
H. J. Barnes	1930	C. A. P. Mitchell	1555
R. W. S. Sawyer	1930	G. J. Coates	1550
W. G. A. Bedford	1920	G. W. H. Cook	1545
R. Jenning	1910	T. B. A. Tuckey	1535
S. C. B. Robinson	1880	F. A. Harris	1515
H. S. Parker	1840	C. B. Lewis	1500
T. F. W. Fogarty	1825	T. H. Parke	1450
R. W. Ford	1825	F. A. B. Daly	1445
G. J. Coutts	1820	A. S. Rose	1445
A. Sharpe	1800	D. L. Porter	1430
C. L. Young	1800	J. Battersby	1425
C. Reid	1780	J. Maconachie	1415
W. J. Baker	1770	A. H. Morgan	1405
A. T. Sloggett	1755	C. H. Dixon	1400
R. R. N. Elmes	1715	T. Moynihan	1375
H. K. Allport	1700	M. W. O'Keeffe	1370
E. Butt	1680	T. J. O'Donnell	1360
S. Townsend	1680	J. Osburne	1355
T. R. P. Woodhouse	1675	H. E. R. Wolrige	1355
J. Gibson	1650	R. P. Hetherington	1315
J. H. A. Rhodes	1625	R. C. Johnstone	1295
A. Hickman	1620	T. A. Dixon	1270
T. C. Nugent	1620	W. C. T. Poole	1250
G. S. Lewis	1610		

INDIAN MEDICAL SERVICE. — The following is a list of the candidates for appointments in the above Service

who were successful at the competitive examination held at Burlington House on Aug. 9th :—

	Marks.		Marks.
G. M. J. Giles ..	2385	J. Shearer	1705
J. L. Vangeyzel ..	2250	A. H. Pierson	1700
A. R. W. Sedgefield	2240	G. M. E. McKee ..	1780
A. F. Ferguson ..	2070	H. M. Hakim	1725
S. Hassan	1970	K. C. Sanjana	1725
H. C. Banerji ..	1945	M. J. Kelawala ..	1715
E. F. H. Dobson ..	1930	G. E. Fooks	1700
H. N. V. Harington	1885	P. De Conceicao ..	1685
W. Deane	1845	F. J. Doyle	1670
R. J. Polden	1840	J. A. Burton	1610
F. S. Peck	1830	M. P. Kharegat ..	1530
S. C. Nandi	1820	P. H. W. Boon ..	1500
K. H. Mistri	1815	J. W. T. Anderson ..	1460

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 19th :—

Cooper, Walter, George-street, Croydon.
Davis, William Henry, Newcastle-on-Tyne.
Divecha, Kaikhasrov R., Bombay.
Lane, Ernest Craven, Hull.
Reynolds, John Swatman, Upper Norwood.
Symons, George Francis, Stockwell Hospital.
Watkins, Christopher James, Mornington-road.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Henry Settle, St. Bartholomew's Hospital; Charles Arthur Wigan, Charing-cross Hospital; Joel Harrington Douty, Middlesex Hospital; John W. Lynch and Arthur Knight Gale, London Hospital; Edward H. McLaughlin, St. Thomas's Hospital; Thomas Russell Pickthorn, St. George's Hospital; Peter Pigott, Guy's Hospital.

[The fourth name in our list of last week should have been printed "Oswald," not "Oswold."]

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Upwards of 500 candidates have entered their names for the forthcoming preliminary examination in arts, &c., for the diploma of Member or Fellow of the Royal College of Surgeons of England, being the largest number on record. Cards of admission, with a time-table, will be forwarded to each candidate in the course of a day or two. The examination will commence on Tuesday, September 7th, at 9 o'clock A.M., at the University of London, Burlington-gardens, W.

A CONVALESCENT HOME is to be founded at Bexhill-on-Sea, at a cost of £12,000, with accommodation for a hundred patients. A sum of £6500 has been contributed by one donor towards the building.

MR. MACRORY, late honorary secretary to the Belfast Royal Hospital, has been presented with an illuminated address, in recognition of his services in connexion with the hospital during the past forty-seven years.

THE BRITISH PHARMACEUTICAL CONFERENCE, held this week at the Royal Institution of South Wales, Swansea, appears to have been well attended. Mr. W. Southall, of Birmingham, the President, delivered an address on the Pharmacy of Celsus and many later medical writers.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mr. Edward Pease bequeathed £1000 to the Saltburn Convalescent Home. By the will of Mr. William Fisher, late of Sheffield, the Sheffield Infirmary and the Hospital for Women, Figtree-lane, become entitled each to £250. The Right Hon. Joseph Chamberlain M.P., and Messrs. J. T. Chance, Thomas Gladstone, T. Kenrick, William Middlemore, and A. F. Osler, have each given £100 towards the proposed new Ladywood Branch of the Birmingham General Dispensary.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ANNINGSON, B., M.D., M.R.C.S.E., has been reappointed Medical Officer of Health for the Borough of Cambridge. £250 per annum.

BARNES, H., M.D., has been appointed Consulting Physician to the Cumberland and Westmorland Convalescent Institution at Silloth.

DAVIES, J. W., L.R.C.P.I., M.R.C.S.E., has been appointed Medical Officer for the Clun District of the Clun Union, Shropshire.

EWART, W., M.B., M.R.C.P.I., has been appointed Pathologist and Curator of the Museum of the Hospital for Consumption and Diseases of the Chest, Brompton.

GLASCOTT, C. E., M.D., has been appointed Honorary Oculist to Henshaw's Blind Asylum, Old Trafford, Manchester.

JOHNSTONE, J. C., M.B., C.M., has been appointed Assistant-Physician to the Royal Edinburgh Asylum, Morningside.

KEYWORTH, G. H., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Wem District and the Workhouse of the Wem Union, vice S. B. Gwynn, F.R.C.S.E., L.S.A.L., deceased.

LOGAN, F. T. B., M.R.C.S.E., has been appointed Medical Officer for the First (A) District and the Small-pox Hospital of the Bedminster Union.

MACINTYRE, A., M.B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Parish of Ardchattan and Muckairn, Argyllshire.

MASSON, W. H., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for Districts Nos. 1 & 2 and the Workhouse of the Daventry Union.

MITCHELL, R. B., M.B., C.M., has been appointed Assistant-Physician to the Fife and Kinross District Asylum, vice Johnstone.

MOORE, Mr. E. H., has been reappointed Public Analyst for the Eastern Division of Sussex for one year. £50 and fees.

MORGAN, W., F.C.S., has been appointed one of the Public Analysts for the County of Glamorgan. 10s. 6d. for each analysis, and £2 12s. 6d. for each statutory report to Quarter Sessions.

PARKER, W. R., B.A., M.B., has been appointed Resident Medical Officer to the Fever Hospital, Netherfield-road, Liverpool.

PATTINSON, J., F.C.S., has been appointed Public Analyst for the Borough of Gateshead. £100 per annum.

PULLIN, F. B., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Churchstanton District of the Taunton Union.

REDWOOD, T., Ph.D., has been reappointed Public Analyst for the Parish of St. John and St. James, Clerkenwell, for one year. £100 per annum.

RIDDELL, R., L.R.C.S.Ed., has been appointed Medical Officer for the Cheriton Bishop District of the Crediton Union.

THOMAS, E. G., M.B. & C.M., has been elected Second Assistant Medical Officer to the Gloucester County Asylum.

THOMAS, J. W., F.C.S., has been appointed one of the Public Analysts for the County of Glamorgan. 10s. 6d. for each analysis, and £2 12s. 6d. for each statutory report to Quarter Sessions.

THOMPSON, R. E., M.D., F.R.C.P.L., has been appointed Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

THURNAM, F. W., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Bradfield District of the Hardingstone Union, vice H. Arnold, resigned.

WANOSTROCHT, V., M.B., C.M., has been appointed Medical Officer to the Escrick District of the York Union.

Births, Marriages, and Deaths.

BIRTHS.

BOWER.—On the 12th inst., at Berry Wood, Northamptonshire, the wife of J. Ireland Bower, M.R.C.S.E., of a son.

JULER.—On the 22nd inst., at Wimpole-street, Cavendish-square, the wife of Henry Juler, Esq., F.R.C.S.E., of a son.

NORBURY.—On the 17th ult., at Simons Town, Cape of Good Hope, the wife of Henry F. Norbury, C.B., Fleet-Surgeon, R.N., of a son.

ORAM.—On the 19th inst., at Clapham-common-gardens, S.W., the wife of Richard R. W. Oram, L.R.C.P.I., M.R.C.S.E. (prematurely), of twin daughters.

PEACOCK.—On the 24th inst., at Forston House, near Dorchester, the wife of Henry Geo. Peacock, L.R.C.P., M.R.C.S.E., Assistant Medical Officer to the Dorset County Asylum, of a son.

ROSSITER.—On the 20th inst., at Cairo Lodge, Weston-super-Mare, the wife of George Frederick Rossiter, M.B., of a daughter.

SMITH.—On the 22nd inst., at Carlton House, Pembridge Villas, Bayswater, the wife of E. Stanley Smith, M.R.C.S.E., of a son.

WALLACE.—On the 22nd inst., at 243, Hackney-road, E., the wife of Frederick Wallace, L.R.C.P.L., of a son.

WILLMOTT.—On the 15th inst., at Bayswater, the wife of Julius J. E. Willmott, M.D., of a son.

MARRIAGES.

BARTLEET—KEMP.—On the 18th inst., at the Parish Church, Castleford, by the Rev. W. T. M. Sylvester, Rector, assisted by the Rev. J. J. Needham, Rector of Whitwood Mere, Harold Stock Bartleet, eldest son of Robert Smith Bartleet, Esq., J.P., D.L., of The Shrubbery, Redditch, to Edith Elizabeth Kemp, eldest daughter of Ebenezer Walker Kemp, Esq., M.R.C.S.E., L.S.A.L., of Bridge Foot, Castleford.

DAVEY — LANG.—On the 17th inst., at Christ Church, New York, Francis Albert Davey, M.R.C.S.E., younger son of the late William Davey, Esq., of Lyncombe, Bath, to Sara Emily, second daughter of Thomas Lang, Esq., of Langville, Georgia, U.S.A.

DUKE — MAY.—On the 14th inst., at St. James's, Clapham-park, Benjamin Duke to Annie Langford, only daughter of Robert Charles May, C.E., of Clapham-park, and 6, Great George-street, Westminster.

TODD—SCOTT.—On the 14th inst., at St. George's, Tombland, Norwich, by the Rev. Kirby Trimmer, Octavius Todd, M.B. & C.M., Surgeon, Army Medical Department, of Landour, Himalayas, India, to Kathleen Mary, second daughter of the late Robert Bagge Scott, of Norwich.

DEATHS.

BRIMS.—On the 13th inst., at Pitlochry, N.B., Elizabeth, relict of the late James Brims, M.D., of Mount Villa, Burnley, aged 43.

HEYWOOD.—On the 18th inst., at Pendleton, H. J. Heywood, M.R.C.S.E., aged 45.

KNOWLES.—At Newmarket-road, Cambridge, Edward Knowles, M.R.C.S.E.

THEED.—On the 20th inst., at The Vicarage, Lower Halstow, Kent, the residence of his brother, Frederick Theed, F.R.C.S., formerly of Rhyl, aged 66.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 26th, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Aug. 20	30·07	N.E.	64	61	99	73	59	..	Overcast
,, 21	30·16	N.E.	64	60	105	79	59	..	Cloudy
,, 22	30·01	E.	66	60	106	74	58	..	Cloudy
,, 23	30·03	E N E	60	58	85	69	54	..	Overcast
,, 24	30·05	N.E.	61	57	87	72	53	..	Overcast
,, 25	29·99	E.	62	60	..	68	57	..	Cloudy
,, 26	29·93	E.	65	63	..	72	59	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday, September 11th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post.*

A DISCLAIMER.

WE have received a communication from *Dr. James Greenwood, M.R.C.S.*, of 48, Canonbury-square, disclaiming the authorship of a paper, entitled "A Case of Fatal Ulceration of the Duodenum, produced through Scalding by Hot Water used as a Hæmostatic, by J. R. Greenwood, M.R.C.S.," which appeared in our last number. Dr. Greenwood says, "I know nothing whatever about it. I have never sent any particulars to THE LANCET Office, nor did my son."

Twyford, Berks.—Dr. Coombe should address his question to the Clerk, or to the Board of Guardians, who will no doubt give him the necessary information concerning the circumstances under which the Board (acting as rural sanitary authority, we presume) have called for the particulars to which he refers—information which we do not possess, and which must determine the question of fee.

Dr. Edward Haughton.—We cannot interfere in the dispute.

OBSCURE PAIN IN BONES AFTER INJURY.

To the Editor of THE LANCET.

SIR,—Would some of your numerous readers kindly give me their advice under the following circumstances?

In the year 1857, whilst residing in India as a civil medical practitioner, I was temporarily attached to the 13th Native Infantry, and served with them during the siege of Lucknow. On one occasion whilst engaged attending an officer who had been mortally wounded in a sortie I was struck on the right clavicle by the fragment of a shell. The shock was pretty severe, but it passed off in a short time, and Dr. Boyd, of H.M.'s 32nd Regiment, who examined the part at once, was unable to detect either fracture or dislocation of the bone, or the slightest abrasion or discoloration of integuments. I resumed duty next day perfectly well. In the year 1877 (that is, twenty years after the occurrence) I was suddenly seized with a pain in the humeral end of the right clavicle, extending in front as far as the nipple of the breast, and in the back along the right scapula to its inferior angle; and since that time to the present I have never been entirely free from it.

Having consulted some of the most eminent men of the profession and tried every means to obtain permanent relief without success, I now, as a *dernier ressort*, place my case in the columns of THE LANCET.

I am, Sir, your obedient servant,

PATRICK BRERETON,

Limerick, Aug. 11th, 1880. Retired Medical Practitioner, I.C.S.

P.S.—My own opinion is that the affection is of a neuralgic character; but I wish to observe that my brother, the late Major Brereton, of the Royal Bengal Lancers, was a great sufferer from gout for many years previous to his death.

DEXTRO-QUININE.

THIS drug is stated to be growing in the estimation of physicians of the United States as a remedial agent in all diseases possessing a periodic character. Dr. J. J. Chambliss, in a paper in the Louisville *Medical Herald*, descants on its merits ascertained by an experience of its satisfactory results in a number of cases where the use of the sulphate of quinine was indicated. The dextro-quinine is recommended as being a safe and efficient substitute for the more expensive compounds of Peruvian bark, whilst its administration is said to be free from the so-called quinine eruption which frequently accompanies the use of the sulphate. It is also less bitter than the latter, and there is not so much certainty of the return of paroxysm in intermittent fever after its exhibition. Moreover, Dr. Chambliss asserts the especial efficacy of the dextro-quinine in "completely eradicating from the system the *materies morbi* in cases of the malarial cachexia where the blood has become so vitiated with malaria as to manifest itself at septinary periods in paroxysms of intermittent fever."

Broadtray.—1. Bristowe or Roberts.—2. Barnes.

PATIENTS' GRATITUDE, PUBLIC AND PRIVATE.

To the Editor of THE LANCET.

SIR,—I was rather startled when at church the other day on hearing the following notice read in a most impressive way to the breathless and listening congregation:—"L. I.—— desires to give thanks to Almighty God for the great benefit she has received at the —— Infirmary."

Now this L. I.—— is a patient of mine, and I was more than astonished to hear her pouring forth her gratitude in this gushing manner. She had always been rather niggardly with her gratitude to me; indeed, had rather been inclined to impatience and grumbling, and it was partly to avoid this that I sent her, about the beginning of the year, as an in-patient to this infirmary.

I was called in again to see her when she returned, and found that she was not by any means cured, and that she was certainly far from feeling the gratitude her public prayers led me to believe. She told me she had been required when she left the infirmary to give this public testimony, and like all, or most of the other patients, had been provided with a printed form to give to the clergyman.

Now, Mr. Editor, I am a general practitioner, a member of a hard-wrought, underpaid, and often unappreciated profession, and do not by any means object to patients expressing their gratitude in a spontaneous way. It comes so seldom in my way that it falls like strange music on my ears. But surely you would object to me, or any other gratitude-craving mortal, insisting on our patients giving a public recognition of their feelings. This style of thing opens up a splendid field for the *touting* system. Why should a public institution do this thing if I may not? Why should it vaunt its cures (so-called) like any quack, when such an easy road to fame is shut to me? It may be urged that because it is a public charity, and supported by voluntary contributions, it is well, nay, imperative, to keep its existence before the public. But surely this can be done in a way somewhat less offensive to professional taste than by publicly praying over a patient's recovery, as if such an event were a national blessing, and an event which happens so seldom in the country that all who hear of it should rejoice. Being personally concerned I may have felt it too much, but under the circumstances such a proceeding seemed to me to outrage common sense, common fair dealing, and indeed common decency. "By their fruits ye shall know them," should be the guiding canon for public no less than for private practitioners.

The general practitioner (especially in the village) is already heavily enough handicapped in the race with the "big doctor," without calling in the aid of grateful prayers in the church service. No one could or would object were this the spontaneous offering of a really grateful patient, but when a printed form of public thanksgiving is pushed into the hands of patients on leaving the infirmary it becomes ridiculous, not only in the eyes of common sense, but in the eyes of the patients themselves. Such, however, is the opinion of

August, 1880. A VILLAGE DOCTOR.

QUERY.

To the Editor of THE LANCET.

SIR,—I read with interest the report in your issue of the 14th inst., of a case of quassia poisoning at Newark, but it occurs to me is it not possibly a case of alcoholic poisoning? for when one remembers that at least nine drachms of rectified spirit were retained in the rectum, and absorbed by a child aged four years, I think the amount is sufficient, and likely to cause all the symptoms described; and again, the recovery was as rapid as the illness was sudden. Yours truly,

Newington Infirmary, S.E., Aug. 16th, 1880. REG. MAPLES.

A SUGGESTION.

To the Editor of THE LANCET.

SIR,—Some correspondence has lately been current in THE LANCET concerning the atmosphere of hot-air baths. I should like to know whether it is practicable to preserve tropical plants in the sudatorium, and if so whether they might not well be employed to counterpoise, as far as may be, the effects of unscientific ventilation.

Yours obediently,

Finsbury-circus, E.C., Aug. 17th, 1880. H.

SEATS FOR SHOPWOMEN.

WE are glad to find that our advocacy of seats for girls in shops has the effect of moving inventors to improvement in this direction. A common objection raised by some employers is "*Stools and chairs are an intolerable obstruction and nuisance behind the counter.*" This safe retreat from our arguments and appeals is likely to be demolished. Messrs. Colman and Glendenning, of Norwich, and 62, St. Martin's-le-Grand, London, have placed before us a working model of an exceedingly simple and ingenious contrivance termed the patent automaton, which effectually removes the objection. It consists of a disc or seat of wood, supported on a single stem of iron, which at its base works in a socket secured to the floor. A touch is sufficient to cause the seat to fall into a recess (the space otherwise occupied by a very small drawer is sufficient), or to assume a horizontal position for use at the distance of about a foot from the counter. Though light, and even elegant in appearance, we are assured by the makers it is of ample strength and solidity. One recommendation will certainly be the ease with which it may be fixed, and its modest price.

Mr. W. Berry (Wigan).—The paper is marked for insertion.

"HOW ANTI-VACCINATION STATISTICS ARE MADE."

To the Editor of THE LANCET.

SIR,—I notice in your impression of the 21st instant a paragraph with the above heading. As my name is mentioned, it may be well for me to write a few words on the subject.

In the first place, the report of my evidence as extracted from the *Northern Echo* is inaccurate and not sufficiently full. My assistant, I stated, had attended the child about a month previously for a syphilitic eruption, and it had improved under the specific treatment. Being absent in the south at the time, he was not called. The eruption after death, as I saw it, could have been, in my opinion, no other than syphilitic. Secondly, from the history of the case, and my seeing the family, I formed my private opinion, for which I was asked at the meeting of the Court, that it was not hereditary, and that it might have been produced by vaccination if the operation had been performed carelessly. To prove how little worth was such an opinion, I gave an example to show that the age at which a child is usually vaccinated, or soon after, is very commonly the time when a hereditary syphilitic taint shows itself. The case was this: Shortly after I had vaccinated a child (about a fortnight after), syphilitic signs began to show themselves, progressed, and the child died. *The mother and father* blamed vaccination for it. As I am always extremely careful about the lymph I use, as also about the cleanness of the lancet, I told the parents it could not have been from the vaccination that the child died. About a year after another child was born, and I proposed not to vaccinate this one until he was six months old, *in order to show that it was not from vaccination that the former child had died.* About the same age this child was taken with the same signs, same rash, same progress to fatal end. *I* had not to "retract," but the parents were sensible enough to give up the idea of vaccination being the cause of death in the former case. For my part I am strongly in favour of compulsory vaccination and of revaccination, and urge it at every opportunity, and therefore felt much grieved that I had to express the opinion I did in open Court. By my qualifications I made my opinion *of*, as little worth as *evidence* as I felt it to be myself. As I had sworn "to give the truth, the whole truth, and nothing but the truth," I considered I was bound to give *truly* my opinion, and, as weakly as I felt it myself, as evidence.—Yours truly,

West Hartlepool, Aug. 23rd, 1880. EUSTACE M. SWANWICK.

A Constant Reader is quite mistaken when he states that the Indian Government has declined to recognise the rank conferred by Royal Warrant on the surgeons of the A.M.D. Indeed this higher relative rank is one of the grievances of the I.M.D. With regard to his complaint that the surgeon only draws 317 rupees a month instead of 450, which he conceives ought to be the rate, he must be aware that this was clearly laid down as the rate in the paper furnished to each candidate before he entered the service. We cannot, therefore, see that there is any reasonable ground of complaint on this point.

M.R.C.S. should bring the case under the notice of the Medical Defence Association.

W. E. M.—We are not aware that any such book has been published.

GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—Whether the nursing in any hospital is carried on by sisters, by ladies, or by women of the same class as their patients, that "system" which does not in every way render a hearty loyal obedience to the medical staff ought to be promptly extinguished. The ladies at Guy's, whatever they may be called, are not "sisters." The ladies nursing at University College Hospital *are* sisters, and, on the whole, the medical staff and this sisterhood seem to jog along pretty well together. The fact is, there are sisters and sisters, and if the doctors could only pick and choose the sisters to work under them, I believe even Guy's itself might be in peace and order in a week. Anyhow, I think it a great pity that Dr. Roxburgh used such an expression as "malign influence."

I am, Sir, yours faithfully,

ARTHUR BRINCKMAN.

All Saints', Margaret-street, Aug. 15th, 1880.

A MEDICAL CORONER AND A MEDICAL WITNESS.

THE *Belfast Evening Telegraph* reports a very unseemly altercation between the medical coroner for the borough of Belfast and a medical witness, Dr. Graham. The latter gentleman complained, when served with the summons, of insufficient notice, and we think most reasonably. He went in person to say that he had an engagement within ten minutes of the time at which he appeared. The coroner alleged no urgency in the case, and did not justify the short notice. Finally, the coroner ended by ordering the constable to take Dr. Graham into custody, and so detained him till he gave his evidence! Our contemporary asks, Is this a creditable proceeding? We should reply in a monosyllable of two letters; and we regret to find it very difficult to justify the coroner.

X.—We are aware of the grievance complained of, and will do our best to remedy it; but we think the publication of our correspondent's letter would do more harm than good.

"COMBATANTS AND NON-COMBATANTS."

To the Editor of THE LANCET.

SIR,—From an article with the above heading which recently appeared in one of your medical contemporaries, taken in connexion with some remarks of yours in a late issue upon the contemplated abolition of the power of exchanging between army medical officers at home and in India, it would appear that the old dictum of each succeeding Secretary of State for War in the days of agitation—namely, "that medical officers cannot expect to be treated differently from all other officers in the service" (e.g., in the matters of forage, exchanges, sick leave, &c. &c.)—is no longer to be heard, and that the old time-honoured custom of giving with one hand and taking from us with the other is still to obtain.

Government have certainly obtained a supply of candidates as a result of the last Warrant, and their troubles for a time are consequently at an end; but it may be well to remind them that the action lately taken by the whole profession in this army medical question can be taken again, though with very much more effect, now that men of the stamp of Lyons and Farquharson are members of the House of Commons.

Medical officers care not what they are styled, but since it is now a well-known fact that they expose their lives freely on the field and in the hospital, and that their mortality is, consequently, far higher than that of any other body of officers, it is surely high time that in the matters of exchanges and of reckoning half-pay service (due to ill-health incurred in and by the service) towards voluntary retirement, they should be treated in the same manner as their purely combatant brother officers, to say nothing whatever of those other departmental officers included "as part of the staff of the army," and so entitled to the advantages connected with voluntary retirement, as laid down for combatant officers in Clauses 88a and 88b in Army Circulars of 1st March, 1880, under the heading "Royal Warrant, &c."

I am, Sir, your obedient servant,

August, 1880. X.

PROVISION FOR THE RELIEF OF SUFFERERS IN RAILWAY ACCIDENTS.

To the Editor of THE LANCET.

SIR,—In an article on "The Liabilities of Foreign Employers," in THE LANCET of July 24th, you mention the fact that in France the railway companies "provide each train with a large medical chest, with splints, bandages, and even the necessary implements for amputations, &c." Shortly after the terrible collision at Abbots Ripton, I wrote to *The Times*, suggesting that each train should carry such a chest in the guard's van, containing splints, bandages, and the means of arresting the hæmorrhage. The need of some such provision was brought forcibly to my mind by my own experience in a railway collision shortly before, where one of the passengers was seriously injured, and the collision having occurred between two stations, in a wild country, two hours elapsed before we could get even a draught of potable water. The suggestion, however, seemed to the general public to be so absurd that the editors of some provincial (and even colonial) papers made it the subject of special, no doubt to their readers, very amusing articles.

Perhaps, Sir, when it is known that this plan is already adopted in France, and if it receives the powerful assistance of your approval, it may some time in the distant future be thought worthy of adoption even in England.

I am, Sir, yours truly,

Manchester, August, 1880. W. H. BARLOW, M.D.

CONSULTANTS *VERSUS* GENERAL PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—In answer to a letter from "A Country Practitioner," I quite think the treatment received by country practitioners at the present day is intolerable, and should advise the gentleman to make himself conversant with all branches of his profession as well as he can, or else I am afraid he must not expect much consideration at the hands of a great many consultants and specialists. I live a few miles from a town of 60,000 people, and I find that etiquette is a thing unknown to the profession in it, so that I have suffered in a similar way to your correspondent; but I have taken measures to show my patients that such conduct is hateful to me, and not conducive to their happiness or health.

Yours truly,

August, 1880. RUS IN URBE.

Nemo.—Works on the subject are legion. Write to Messrs. Spon, Charing-cross, and ask for a list of works published by them relating to sewerage and drainage and utilisation of sewage. Consult Parkes' and Wilson's text-books on Hygiene (Messrs. Churchill), and Professor Corfield's work on the Treatment and Utilisation of Sewage (Macmillan and Co.)

M. H. J.—We cannot advise; consult a practitioner.

"TREATMENT OF SCARLET FEVER BY WARM BATHS."

To the Editor of THE LANCET.

SIR,—Under this heading I saw a letter in THE LANCET of Aug. 14th, by Dr. Lush, of Weymouth. It so happened that at the time he refers to I was acting as assistant to Dr. Aldridge, of Dorchester, in Dorset. We had had a few isolated cases of scarlatina of a mild form for several months, but in the month of August, 1870, an epidemic burst upon the town and neighbourhood with terrible violence. I am sorry to be obliged to confess that many died, and that I cannot with Dr. Lush say "we did not lose a single case." The warm baths were tried in the way recommended by Dr. Lush, and in many cases answered admirably, but neither the warm, the tepid, nor the cold had any effect upon the worst cases.....Though I highly approve of warm baths, as soothing to the system, and calculated to keep up the action of the skin, still in the worst forms of this fever baths are no good whatever.

I am, Sir, your obedient servant,

F. WILLIAM SMITH, M.D.

Leamington, Warwick, August 16th, 1880.

"RUNNING" IMPULSE IN EPILEPSY.

To the Editor of THE LANCET.

SIR,—Your correspondent, Dr. J. D. Miller, describes an interesting case of the "running" impulse in epilepsy.

Some time ago I had the opportunity of observing a similar case, which was unusually instructive from being discovered to have been occasioned by masturbation. Measures were taken to put a stop to this practice, and the patient recovered from the epileptic symptoms.

Yours &c.,

August 24th, 1880. GLYNN WHITTLE, M.A., M.D., &c.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. B. Squire, London; Mr. Spencer Watson; Mr. MacDowall, Bombay; Mr. Treves, London; Dr. Haughton, Norwood; Mr. Horn; Mr. Berry; Dr. Pullin, Sidmouth; Mr. Stroud, Farnham; Mr. Berridge, Redhill; Mr. Booth; Mr. Dobbin; Dr. Clouston; Mr. Verdon, London; Mr. Lory, Penge; Dr. Anderson, York; Mr. Hudson, Whitby; Mr. Jackson, Sheffield; Dr. Power, London; Mr. Appleyard, Maidstone; Dr. Thomas, Glasgow; Mr. Reid, Milton, New Zealand; Mrs. Thorpe, Hereford; Mr. Morgan, Box; Mr. Kenrick, Aberystwith; Mr. J. H. Potter; Mr. Joseph; Mr. Banks; Dr. M. Skerritt, Bristol; Dr. Whittle; Dr. J. Thompson, Leamington; Mr. Swanwick, West Hartlepool; Mr. Tuer, London; Mr. Pearse; Mr. Hawkins; Mr. Gilbert; Dr. Dudfield; Mr. Rendle, Polperro; Messrs. Street Brothers; Mr. Willoughby; Dr. Wallace, Hackney; Messrs. Dick, Radcliffe, and Co., London; Mr. Scott, Manchester; Mr. Woodin, Bethnal-green; Mr. Dent, London; Dr. Pinder, Bow; Messrs. Hyles and Son, Brighton; Mr. Day, Manchester; Mr. J. Greenwood; Dr. R. Sinclair, Dundee; C. H.; M. H. J.; Breadtray; The Director-General of the Army Medical Department; Looker-on; M.R.C.S.; R. W.; The Military Secretary, India Office; M.D.; C. R.; A Village Doctor; M.; Delta; M.D.; L.R.C.P. Ed.; Rus in Urbe; Nemo; Æsculapius; M.R.C.P.; Outis, J. P.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Lewis, Basingstoke; Mr. Duke, Clapham; Mr. Abbott, Blackburn; Dr. Frith, Blofield; Mr. Davidson, Measham; Messrs. Harvey and Reynolds, Leeds; Dr. Leaborne, Wombwell; Mr. Barbidge, Coventry; Dr. Bower, Bedford; Mr. Simpson, Oldham; Mr. Madigan, Kilrush; Dr. Kirkman, St. Leonards; Mr. Hodgson, Crewe; Mr. Hyatt, Stow-on-the-Wold; Mr. Anderson, Newton-le-Willows; Dr. Marsh, Bradford; Messrs. Donisthorp and Co., Exeter; Mr. Newcombe, London; Mrs. Barker, Ramsgate; Mr. Hutchinson, Snainton; Messrs. Wright and Co., Birmingham; Mr. Bernstein, Birkenhead; Mr. Manton, London; Mr. Narbury, Cape of Good Hope; Mr. Mouritz, Runcorn; Mr. Dalrymple; Mr. Nason, Birmingham; Mr. Waddy, London; Dr. Wise, London; Mr. Lilly; Dr. Colmer, Yeovil; Mr. Steele, Norwich; Dr. Adams, Marlock; Miss Flower, Leicester; Dr. Crowther, Halifax; Mr. White, Bradford; Messrs. Grace, Bristol; Mr. Slyer, Brighton; Mr. Brough, Hampstead-road; Dr. Peacock, Dorchester; Mr. Kemp, Castleford; J. R., Axminster; P., F.R.C.S.; Alpha; Chirurgius; M.R.C.S., London; Delta, Reading; E. O. G., Borough; Delta, Derby; Medicus, Aberdeen; A. X., Axminster; H. F., Woking; Alpha, Audley; C., Chatteris; J. R., Borough; Semper Paratus, Ashton-under-Lyne; P.; Alpha, Borough; A. S.; T. B. P.; F. B.; C. W. S., Selby; Registrar, Bath; Princeps, London; M.R.C.S., Brixton; Rus; X.; Archibald; Alpha, Lewes; M.D., London; Surgeon, St. Helens; M.; C. C. R., Poplar; C. R.; Doctor, Tunbridge Wells; Queen's-road, Dalston; R. R., Preston; L. R.; C. H. M.; Delta, Faversham; F. C. P.; &c.

Sussex Daily News, Shield, Chemists' Journal, Pharmaceutical Journal, Church of England Temperance Chronicle, Pendleton Reporter, Chicago Medical Times, Gaceta Médica de Sevilla, Night and Day, Medical Herald, Brighton Herald, Norwich Argus, Portsmouth Evening News, Temperance Record, West Sussex Gazette, Edinburgh Courant, Evening News, Buxton Advertiser, &c., have been received.

Medical Diary for the ensuing Week.

Monday, Aug. 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, Aug. 31.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.

Wednesday, Sept. 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

Friday, Sept. 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 4.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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